



AND A MANUFACTURING AND TEXTILE PAPER, DEVOTED TO THE UPBUILDING OF SOUTHERN MANUFACTURES AND THE DEVELOPMENT OF THE MATERIAL RESOURCES OF THE SOUTH.

VOL. 7. No. 5.
WEEKLY.

BALTIMORE, MARCH 14, 1885.

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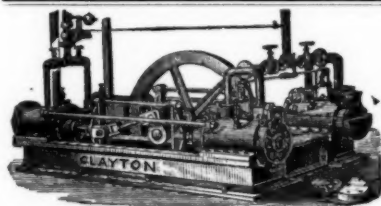
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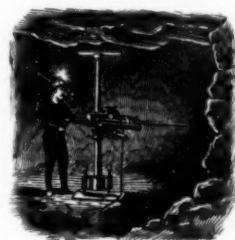
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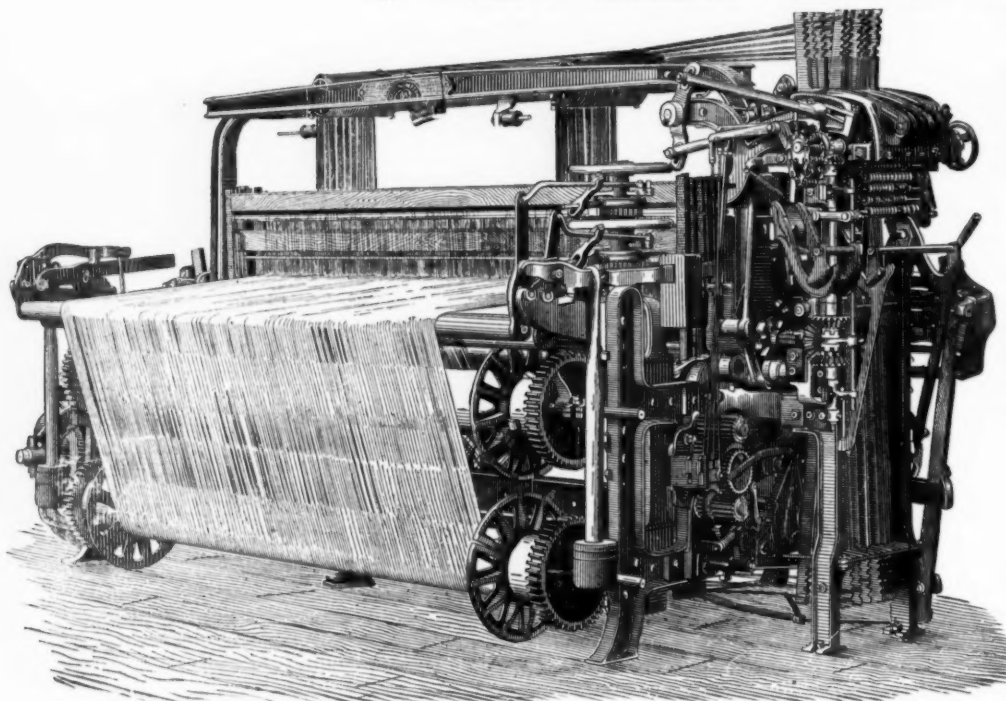
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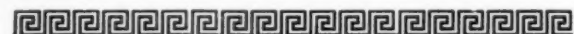
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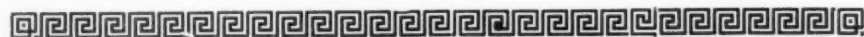
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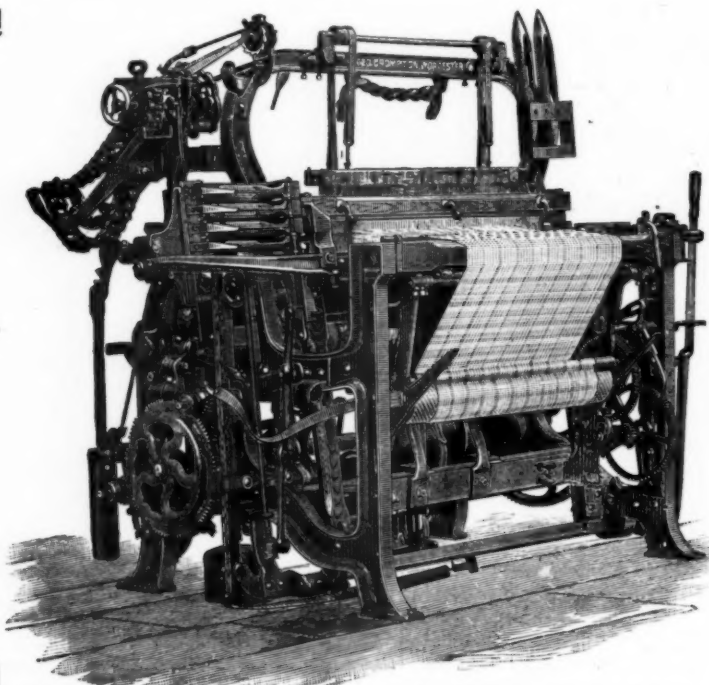
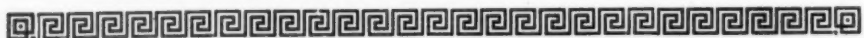
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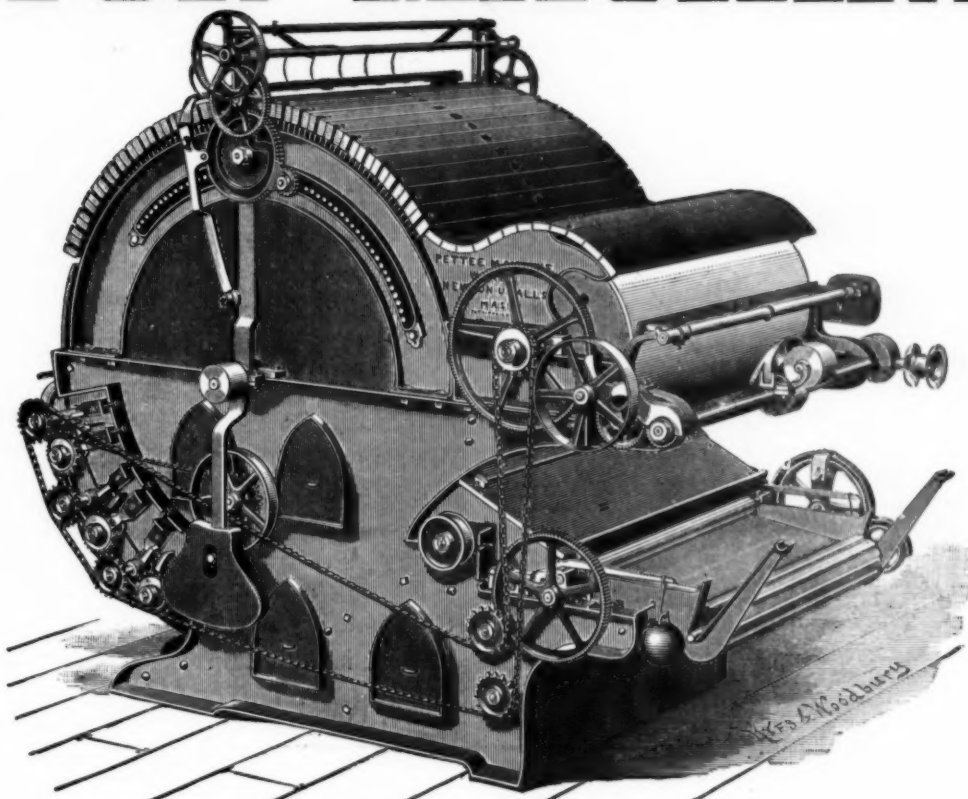
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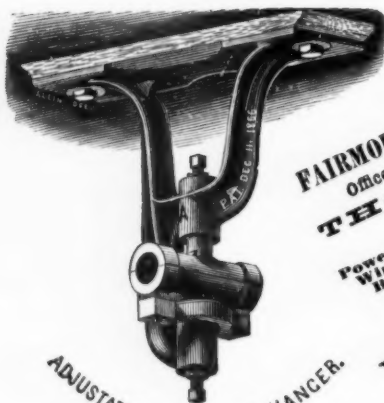
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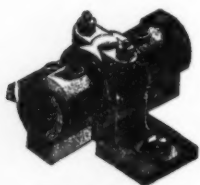
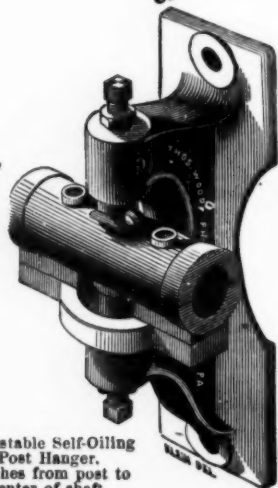
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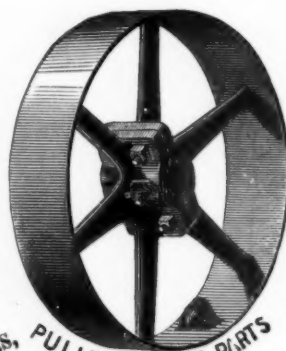
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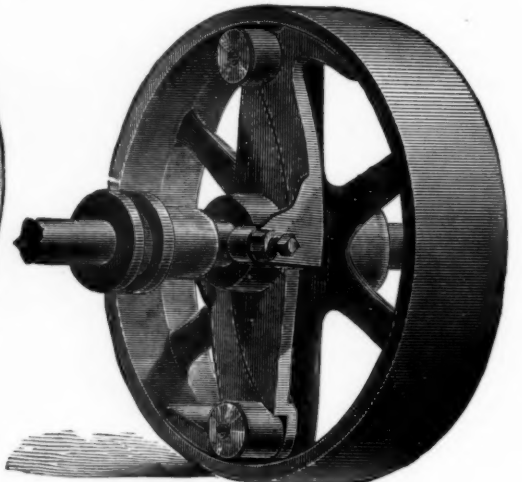
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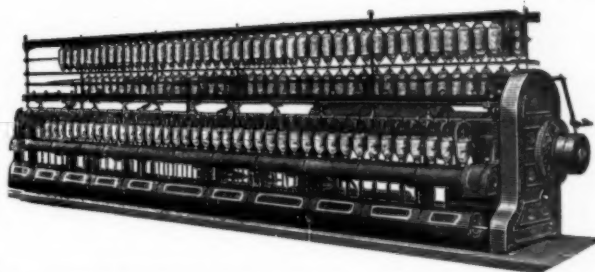
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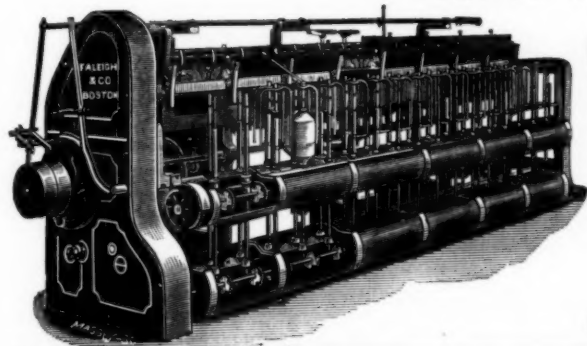
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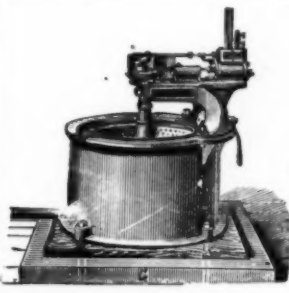
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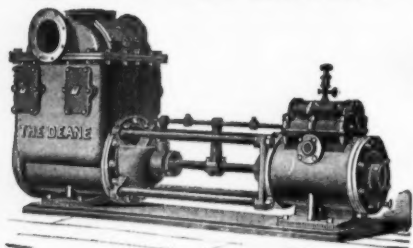
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Muzzle for contracting
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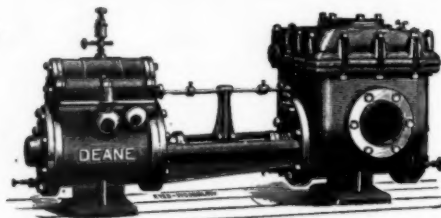
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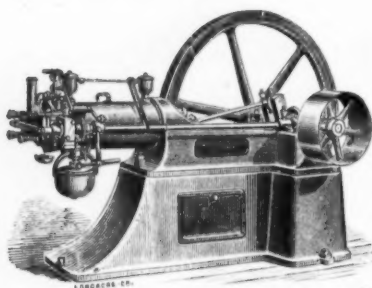
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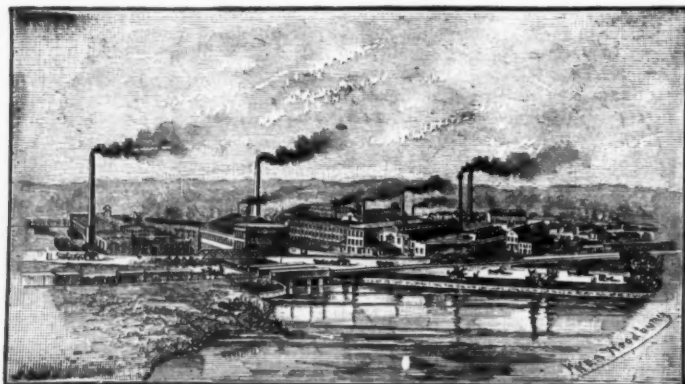
GEORGE DRAPER & SONS, Manufacturers of COTTON MACHINERY HOPEDALE, MASS.

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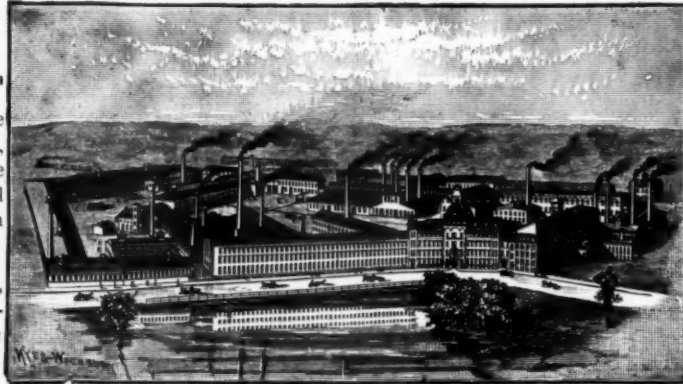
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Published Every Saturday by

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E. E. Edmonds. J. W. Bigsby. Wm. E. Edmonds.

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BALTIMORE, MARCH 14, 1885.

CORRESPONDENCE relating to the manufacturing, mining, lumbering and all other material interests of the Southern States is solicited. Reaching so many capitalists in all parts of the United States seeking profitable investment in the South, the MANUFACTURERS' RECORD offers an excellent chance for the people in that section to place the advantages of each locality before those likely to be interested. We will take great pleasure at all times in telling what has already been accomplished in the South, and showing up the opportunities of doing still more.

A FRIEND claims that the statistics of the United States Agricultural Department—as to the number of hogs in the country—published in our last issue, are incorrect, as he is certain that they did not include some that he occasionally sees in the street cars.

WE wish to say a good word for the Baltimore MANUFACTURERS' RECORD. Our readers will bear testimony that we have adhered to our pledge, that the *Budget* would refrain from puffery and scandal. We do not mean to puff the RECORD. It deserves honest praise and generous thanks for truthfully stating the real condition of affairs in the South. The RECORD has the ear and confidence of the Northern people, and it could do this section no greater injury than by practicing deception or indulging in gross exaggeration. "The truth, the whole truth and nothing but the truth," is all that the South asks from those who would honestly plead her cause. *Budget*, Nashville, Tenn.

Sales of Southern Iron in the North.

The statistics that have been given from time to time in the MANUFACTURERS' RECORD as to the progress of pig iron production in the South and the statements as to increasing sales of Southern iron in the Northern markets, are emphasized by a late editorial in the New York Commercial Bulletin, which says: "Quite liberal purchases of Southern pig iron have been made in this and the Philadelphia markets within about a week or ten days, and from all accounts this product is holding its own, if indeed not making headway, in sections where Northern iron has heretofore been wholly used. Our market report notes a sale of some 5,000 tons grey forge to a pipe manufacturer and 1,000 tons foundry to stove manufacturers in Philadelphia, of Alabama product. The Baltimore & Ohio Railroad Company is reported to have purchased about 5,000 tons Alabama charcoal iron for the manufacture of car wheels. A New York manufacturer is reported to have purchased 2,000 tons of Tennessee and Georgia iron for manufacture of small size water pipe. Besides these transactions, smaller ones are reported of about 900 tons Virginia and 200 tons Alabama iron for general foundry use by New York State and New England consumers. This business, coming as it does in face of general reports of dullness in the Lehigh region, is significant. It is understood that a part owner of one of the largest Pennsylvania pig iron companies is largely interested in an Alabama concern, and some accounts have it that the interest extends even to superintending the latter personally. With the above facts in view, it is patent that Southern iron is in the Northern markets to stay."

The sales referred to in the foregoing extract are stated to be 5,000 tons of Alabama iron ("Sloss" brand) at \$15 in Philadelphia for pipe manufacturing, 1,000 tons foundry grade, same brand, to stove makers; 5,000 tons Clifton and Woodstock (Alabama) brands of charcoal iron to the Baltimore & Ohio Railroad for the manufacture of car wheels. Adams & Co., of New York, report selling in that market 1,000 tons of Chattanooga iron and 1,000 tons Georgia iron and 850 tons Victoria (Virginia) foundry at \$17, and 200 tons Sloss No. 1 foundry at \$18. It is quite evident that "Southern iron is in the Northern markets to stay."

THE discovery of silver and gold and other mines is getting to be such a common thing in the South that no one can be certain in purchasing land but what he may be getting a mine of some kind thrown in free.

An advertiser writes to us: "I have been surprised at the large number of replies to my advertisement in your paper."

The Increasing Production of Foodstuffs at the South.

The statistics of the United States Agricultural Department, published in the last issue of the MANUFACTURERS' RECORD, as to the number of live stock in the South, were so large, especially, as to hogs, that we enquired of Prof. J. R. Dodge, the statistician of the department, how it was that the South raising as many hogs in proportion to population as the rest of the country, was compelled to buy provisions in such large quantities from the West, and asked if it was not due to the greater average weight of Western hogs at killing time? We also asked if the estimate that was made some years ago as to the value of foodstuffs annually purchased by the South of the West, was correct or not? In reply we have the following:

DEPARTMENT OF AGRICULTURE,
WASHINGTON, D. C., March 5, 1885.
Editor Manufacturers' Record:

Your suspicion is correct as to the weight of hogs of the South. The numbers, as you see, are pretty large, but they get their living in the fields and forests, live on grass, and in the autumn top off on nuts, acorns, &c.,—"mast"—and burrow in pea fields. I think pork can be made as cheaply in the South as anywhere on winter pasture, various forage plants later, especially the field pea, with some corn.

I suppose the net weight of Southern hogs, as slaughtered, is not more than 125 pounds, at least those of the cotton States, while the average of the Western pork packers is over 200 pounds.

This makes the main difference. I think the estimate of provisions and breadstuffs brought into the South (\$125,000,000), is exaggerated. There is less now than formerly—a gradual decrease. We find many counties in the cotton States reporting a full supply of breadstuffs and meats. Respectfully,

J. R. DODGE, Statistician.

It is gratifying to know that the South is steadily increasing her production of foodstuffs. With this increase will come a marked improvement in the financial condition of Southern farmers, and thus naturally of the whole South. The South can, as Prof. Dodge says, raise pork as cheaply as it can be produced anywhere, and there is really no good reason why that section should have to buy one dollar's worth of bacon, corn or flour.

A PROMINENT Southern author and journalist, whom we have never met, but with whom we have exchanged a few letters, in a private letter, under date of March 2, in speaking of our list of new enterprises organized in the South in 1884, as published January 10th, says:

"I regard that as one of the most brilliant and beneficent strokes of journalism ever made by any paper. It was novel, exceedingly impressive and the authenticity never had a parallel, when the largeness of detail and the novelty of facts were combined. As a Southerner I felt a pride in the feat, as one to catch and fix the eye of the world on the development of the South; and I felt that it was a true fructifying illumination, like the blessed light of the sun, and not a dancing, alluring will-o-the-wisp, which only astonishes and ensnares the eye. I have no idea that any work in behalf of the South, has been at once so dazzling, convincing, so full of usefulness. It commands attention and silences cavil, and it will be bearing good fruits indefinitely."

The Contemplated Removal of the Oliver Chilled Plow Works.

It has been very generally understood for several weeks that the owners of the Oliver Chilled Plow Works, of South Bend, Indiana, contemplated removing their immense plow works which employ about 1,000 hands, from South Bend to some other location where cheap raw material, good transportation facilities, &c., could be secured. With a view to helping to secure the location of so important an enterprise somewhere in the South, having no preference for any particular place, we wrote to the managers of these works, calling attention to the unequalled advantages offered by the South for such an industry, and requested that before deciding on any location they would carefully examine the many advantages which could be secured in the South. In reply we have the following letter:

SOUTH BEND, IND., March 6, 1885.

Editor Manufacturers' Record:

DEAR SIR—In reply to your favor of the fourth instant: Since the subject of the removal of our factory has been under consideration, we have been favored with many communications from our friends in other cities and towns, who have done us the honor to suggest their respective localities as proper places for our works. All these places present certain advantages, and we greatly appreciate the compliment conveyed in wishing to remove us to them. But our own people are very loth to concede the possibility of our removal, and extraordinary measures have recently been taken by the city authorities and citizens generally to prevent this. So reassuring are these measures that we are inclined to give them due consideration before deciding definitely to go elsewhere. We are not, therefore, in a position to say positively that we shall move, but should such be our final conclusion, the advantages offered by the South will be carefully canvassed. Meanwhile permit us to thank you for the courtesy shown us, and believe us, very truly yours,

OLIVER CHILLED PLOW WORKS.

While, as can be seen by the foregoing letter, these works may not be removed, there is still a possibility that they will be, and it may, therefore, be worth while for the cities and towns of the South that can show any superior advantages for enterprise of this kind, to call the attention of the owners of these works to the inducements that they can offer.

THE Macon, Ga., *Telegraph and Messenger* does not seem to be a very reliable paper, even concerning the business interests of its own city, notwithstanding its disposition to criticise others. It lately reported that B. L. Willingham and others, of Macon, would establish an oil refinery in that town. Mr. Willingham writes to us as follows:

MACON, GA., February 27, 1885.

Editor Manufacturers' Record:

The article published in the *Telegraph and Messenger* is a mistake. I have never had the slightest notion of entering into such an enterprise as a cotton seed oil refinery. Yours &c.,

B. L. WILLINGHAM.

The *Telegraph and Messenger* doubts the reported industrial progress of the South and sees few or no signs of it in Macon. But Macon is growing, notwithstanding the inability of the *Telegraph* to see it. The letter from Macon, published to day, shows what good progress that city is making in manufactures.

The World's Fair.

The Progress of the South as Shown at New Orleans.

[From our Regular Correspondent.]

NEW ORLEANS, March 4, 1885.

The attendance at the Exposition grounds for the past week has averaged about ten thousand per day, which appears to be a very small crowd after the crush of humanity we experienced during the festivities of Mardi Gras. It is expected that with the encouragement giving to the enterprise by the recent appropriation of Congress, that the tide of travel which now surges towards Washington to view the inaugural ceremonies, will turn this way, and next month's attendance will be equal to that known at any of the great fairs held in the United States. In interest, number and commercial value, the exhibits here far surpass those at Philadelphia, Atlanta, Boston or Louisville. Especially is this true of the exhibits of the Southern States, which have all shown a very proper spirit of emulation in availing themselves of this opportunity to open their gates to capital and emigration. Even in those whose legislatures failed to make appropriations for the purpose, exhibits of the leading industries have been collected through the liberality and enterprise of the manufacturers, the boards of trade in the cities, and, above all, the railroads whose interest lie within their borders. Thus Virginia, without State aid, exhibits her splendid work in iron, tobacco industry and views of the lovely and grand scenery through which the railroads of the State pass, with wheat which the West can never improve upon. Alabama, her coal and iron, and Georgia, her wealth of stone and minerals, with samples of the cotton which the Savannah and Atlanta buyers distribute over the world, and the manufactured cotton, in which industry Georgia has led the South. Florida also, without State aid, makes a fine display of tropical fruit. The national appropriation for each State may be considered as only a sufficiency to place and keep the exhibits in the building after getting them here.

The interest of the South being still, in spite of the vast increase in mining and manufacturing, principally agricultural, it is very gratifying to note from the Southern exhibits that the farmers of this section have fully realized that diversity is the tone of agriculture. The great variety of field crops shown in the South Carolina exhibit finely illustrates the new departure which has taken place in the whole South, for the South Carolinian deserves the prize as a model State exhibit, for fully does it present to view the entire production of the State. Some of the States have come here mounted upon "hobbies," but the whole Palmetto State is represented, and among her well-known and appreciated products, rice and Sea Island cotton, and the familiar corn, wheat, oats and various other Southern staples, it is very interesting to note the advent of new and profitable crops. Among them may be mentioned jute, millo-maize and the grape for wine making. The only piece of jute bagging ever manufactured from Southern raised jute was sent here by the Charleston Bagging Manufacturing Company, and may be considered as the pioneer of an industry designed to be next to cotton, the greatest the South has ever known. The advantage which India possessed over the South in raising jute, in consequence of her cheap labor, is now, it is believed, overbalanced by the machinery we possess, by means of which the fibre is separated from the stem without submitting it to the long and tedious process of rotting the bark off in water, which is in use in India. There are five decorticators on exhibition here: The Abee Smith Universal Decorticator, the Jamaica Decorticator, the Anderson Machine, and the Ramie Fibre Manufacturing Company, which company exhibits a machine farmers can easily work in their fields after a few days of cutting, when the stalks are

quite green. They show on the Exposition grounds the whole process of ungumming and cleaning the crude bark. The weight is reduced about 50 per cent., but the fibre is released almost as fine as silk. Many farmers have been deterred from raising jute by the fact that there was no market for the crude stalks, and their inability to manipulate the crop. This difficulty is removed in this State by the offer which this company makes through the State Department of Agriculture and the press generally, to buy from the farmers at five cents per pound all that they will raise, as one acre, closely planted, yields 1,500 pounds of crude bark; and the climate and soil of Louisiana is so well adapted to ramie culture, that two and sometimes three crops can be raised in a year. The way is made clear for the introduction of this valuable crop. South Carolina is never a laggard in any race, and it will not be long before one of her progressive men will make the same opportunity for the planters of that State.

One of the chief expenses connected with the raising of jute in India is caused by the poor implements they have to plow the land with. They use a most primitive plow made of wood, a single point tipped with iron, and drawn by oxen. It merely scratches the soil, and it is necessary for them to cross and recross the fields as many as twenty times. A visit to Machinery Hall here and an inspection of one of the recently introduced screw pulverizers, with which one man in a single trip prepares the soil for a distance of eight feet in width, sowing the seed and covering it at the same time, will convince the most skeptical that we can compete with India cheap labor. India sent last year to Europe and America nearly 3,000,000 bales of jute, 400 pounds to the bale. The Southern States could, without injury to their existing staples, easily produce this amount of jute, and well afford to undersell India. Millo-maize reaches in South Carolina to a high degree of excellence, as the stalks with the rich heads of grain crowning them shown here, prove. The seed was brought to this country from South America, and it will undoubtedly soon be a common field crop in South Carolina and other Southern States. That South Carolina has lands well adapted to the cultivation of the grape has long been known, and a number of the beautiful hill-sides of the northern portion of the State are crowned with vineyards, whose product make a luxurious exhibit here. The good results to be expected from so fine an exhibit as this State makes, has already been manifested in this one branch.

Prof. F. C. Boucher, of St. Paul, Minn., Consular Agent of France and Director of the French Emigration Society, visited the South Carolina Department the past week, and was surprised at and delighted with the display of fruits, grape and wine. He has been authorized to study the advantages of various sections of the South, and submit a report upon the result of his observation for the information of a number of wine-growers in the south of France, who wish to move to the Southern part of the United States. He examined carefully the official documents furnished him at the South Carolina office, and expressed the opinion that the upper portion of the State offers great inducement to the class of emigrants mentioned, and he left New Orleans on Friday for Greenville, South Carolina, to make a personal observation of that part of the State. He says if his visit confirms, as he has no doubt it will, the very favorable impressions he has found of the Piedmont section of the State, that several French colonies will be located there soon. Prof. Boucher says that while the vines which they will plant are growing, the colonist will engage in gold and silver mining and other pursuits. They will bring with them money sufficient to sustain them until their vineyards begin to yield. Silk culture, which Dr. Eggleston, in his article on Husbandry in Colony Times in the Jan-

uary Century, calls "silk folly," has always been a favorite experimental pursuit in South Carolina since 1699, in which year Dr. Eggleston says Sir Nathaniel Johnson, afterward Governor of South Carolina, sent specimens of his silk to England. There is on exhibition here now, as the centre-piece of a pretty collection of cocoons raised last season in South Carolina, a square of a silk dress spun and woven in South Carolina over one hundred and thirty-five years ago. It is of the natural golden color of silk, deepened by old age to an old-gold tint, and is in itself the best encouragement possible to the ladies of the present age to take up this old-time employment, and, by the light of modern science, to search out the pathway to success. The details of this business especially recommend themselves to the attention of ladies and children upon Southern plantations, to whom time is not money, and the results of their labor are so pretty as to be pleasing to their love of the beautiful. Not only is the land well tilled in South Carolina, but the waters of the State, in addition to the task given them to run the many manufactories planted upon their banks, have been made to yield more than their former share of food for man.

The fish commission of the State has met with great success in the artificial propagation of shad, releasing each year thousands of young shad in the principal streams, and that these live and thrive has been proven by the catch of half-grown fish, easily distinguished from the native fish by the fishermen on the Edisto river. The food fish of the State are represented here by several hundred specimens put up in plaster by a new process, which preserves the skin of the fish over a plaster model. The skin is painted and varnished and makes a perfect representation of the live fish. Among them is a trout which weighed 14½ pounds, and several specimens of the German carp, which have been distributed all over the State and which proves to be a very profitable pond fish. The farmers say that an acre pond stocked with these fish will do more towards feeding a family than any crop which could be raised upon the land. The Hosiery Company of Columbia, whose factory has already been fully noticed in the MANUFACTURERS' RECORD, makes a fine exhibit here, and its wonderful success will do a great deal towards the establishment of similar enterprises in the State. The cotton factories, which have increased extensively in the last four years, have sent splendid exhibits of their work. The space at command in this letter is not sufficient to tell of the display made here of South Carolina's great natural wealth in phosphates and timber. Those great resources, with her cotton and rice interests, will claim the attention of your readers at some future time. L. A. R.

Miss St. Pierre's Coal Mines.

ST. PIERRE MINES,

ANDERSON, TENN., March 2, 1885.

Editor Manufacturers' Record:

The property owned by Miss Maude St. Pierre is one of the richest mineral properties in the South, and the coal veins, four in number, already opened. Miss St. Pierre is working on a vein at present showing in the face 4 feet 5 inches of coal, and has driven an entry 500 or 600 feet, and is making preparations to run a railroad up the mountain. She has her road surveyed and ties cut for that purpose, and W. H. Lovell, the general manager, is only awaiting Miss Maude's arrival from New York to commence operations on a large scale. Miss St. Pierre has signified her intention to run a blast furnace and open up other enterprises. There is not the slightest doubt as to the whole 14,000 acres of land owned by Miss St. Pierre, in this vicinity, being one vast coal field, and of the six entries driven, four show up a face of over three-foot coal.

Yours respectfully, A. H. BERESFORD.

[Mr. Beresford is manager of Miss St. Pierre's coal mines, about which there have been so many contradictory reports.]

Notes * From * Dixie.

BY CHAS. H. WELLS.

Mr. James L. Taylor, general passenger agent of the Savannah, Florida & Western Railroad, has issued a new "Guide to Florida," that for beauty of workmanship and artistic excellence is not surpassed by railroad publication yet gotten out in the South. The book is bound in imitation of alligator leather, with a fine picture of a "peninsular everglade" on the front leaf and a pretty girl surrounded by ferns and orange blossoms on the back. The literary portion of the book was done by John Temple Graves, and the illustrations are in keeping with the *recherche* binding.

A correspondent at Grand Rapids, Mich., wants to know what I mean by the "Piedmont region" so frequently alluded to in the Dixie Notes. In reply, I quote from advance sheets of Colonel Hillyard's book, *The New South*: "The Piedmont region of South Carolina coincides very nearly with what is known as the 'upper country' of the State. It includes the whole of eight counties, to wit: Abbeville, Anderson, Newberry, Laurens, Union, Fairfield, Chester and Lancaster. It also embraces the northern portions of Edgefield and Lexington, and the northwestern portions of Richland, Kershaw and Chesterfield. The southern parts of Oconee and Pickens, and the southern and larger portions of Greenville, Spartanburg and York, are within its limits. A line drawn from a point on the Savannah river three miles above Hamburg to Columbia, and running thence northeast to where the Great Pee Dee river crosses from North into South Carolina, defines, in a general way, its southern border. Its northern boundary follows, in the main, the direction of the Atlanta & Charlotte Air Line Railroad, which lies on the edge of the Alpine region, just north of the one under consideration."

Professor Colton says that in Western North Carolina there is an immense quantity of magnetite, and he predicts the day will come when North Carolina will be as famed for its mines of magnetic and specular iron ores, of copper, nickel, manganese and chrome as is now the great and much-talked-about Lake Superior country. He is also an authority for the statement that only a small part of the great Alleghany magnetic ore is in Tennessee, the greater portion lying in the "old North State." Professor Kerr, of North Carolina, also writes: "The ores of iron are very widely distributed in our State, their occurrence being not only co-extensive with the area of the archæan or azoic rocks, but extending over the mesozoic and even into the quaternary; and these occurrences include all the principal kinds of ore—magnetite, hematite, limonite and siderite—and most of their varieties and modifications."

Work on the Asheville & Spartanburg Railroad has at length begun, if the Raleigh newspapers are to be believed. The completion of the road ought not to take more than three months, so it would be almost safe to say that the line will be open for business by the first of July. This will enable the Charleston people to get up to the mountains without being obliged to go way around by Salisbury. It will be of great benefit to Asheville, but not, perhaps, to Hendersonville, which will lose a good deal of business, owing to the inferior hotel accommodations there. The ride from Spartanburg to Hendersonville is one of the most picturesque in the Carolinas, the road being a marvel of engineering skill.

Fayetteville, North Carolina, seems to be enjoying a "boom" just now. Major Brid-

gers, of the Coast Line, is arranging to build the "Wilson short cut" and to erect elegant buildings in the heart of the town. The greatest credit is due, however, to the Cape Fear and Yadkin Valley Railroad which has done so much to further the prosperity of the entire section through which it runs. Real estate in Fayetteville has appreciated in value very materially since the beginning of the present year, and the indications are that the "boom" has come to stay. This is due in a measure to the fact that North Carolina is free from the iniquitous railroad laws that are harassing Georgia and South Carolina to-day.

The bill for the relief of Confederate soldiers, introduced in the North Carolina State Legislature recently—and referred to at the time in these columns—does not seem to meet with general approval throughout the State. The *Newton Enterprise* commenting on the bill says: "It will knock 5,000 votes from the Democratic column in this State. If our legislators could have been able to get about three more straight drinks, they would have added another bill to pay for the 'niggers' set free by the war. It is the most 'patriotic' set of men that has been to Raleigh since the days of Radicalism of 1868. In the country, the yeomanry have done more 'honest cussing' their work than the recording angel could attend to."

There is always an interest, if not a real charm, about a woman's work when she undertakes anything new. The Henderson (N. C.) *Gold Leaf* says: Mrs. Edwin Stephens, of Newark, N. J., who moved to Henderson, has cultivated a crop of tobacco—a garden lot of less than one-fourth of an acre. She not only superintended it, but, for the most part, did the work herself, and we are safe to presume that no tobacco patch ever received more careful and constant attention. On this small lot Mrs. Stephens made 114 pounds of tobacco, which she sold a few days ago. Thirty-six dollars and forty cents was the amount realized for the crop. Mrs. Stephens was well pleased with her first experience at tobacco culture. She has done well, but no better than any one of the scores of ladies in and about Wadesboro' can do if they will but try.

One of the recent sensations at Raleigh was the attack made upon the Hon. Richmond Pearson, member from Buncombe county, by the Hon. R. Y. McAden, president of the Asheville & Spartanburg Railroad. Mr. McAden struck Mr. Pearson, breaking that gentleman's nose. It seems that Mr. McAden had attacked Mr. Pearson through the newspapers, and Mr. Pearson replied in a speech in the State Assembly. When they next met upon the street the blow was struck. The whole affair grew out of the Asheville & Spartanburg Railroad difficulty.—Mr. Pearson having been elected to the legislature upon the promise that he would force the company to complete the road at once, or would secure the forfeiture of their charter.

A number of gentlemen in a prosperous Southern town have subscribed \$25,000 in cash to found a national bank. They have requested the "Dixie Notes" to say that they want \$30,000 of outside capital, upon which they will either pay 7 per cent. interest or give three-fifths of the bank stock. Full details may be learned by addressing Box 160, Greenville, S. C. The bank would earn twelve per cent. a year, as it is to be started in a town (free from debt,) whose assessed valuation is \$396,000, and no bank within thirty miles. The population is about 1,600 in the town and 9,000 in the outlying districts, and in the neighborhood are twenty-six stores doing a business of \$550,000 a year,—including jobbing house

and cotton buyers and fertilizer agents, whose business amounts to a large sum annually. The nearest bank has been paying fifteen per cent. dividends for six years.

The high rates of interest that are secured by Southern banks has already been mentioned. On sums of under \$1,000, ten per cent. a year is charged, or one per cent. a month for short loans of 30, 60 or 90 days. Exchange on New York, Baltimore or Richmond costs from twenty-five to fifty cents, and it costs you about forty cents to get a cheque on a neighboring bank cashed. At these rates, together with what they make on their real estate speculations, it is no wonder the banks can pay fifteen per cent. dividends. A cashier and one clerk can do all the work, the president of the concern being the manager-in-chief, who directs all the speculations.

The stagnation in trade caused by the big jubilee in Washington during inauguration week, was something remarkable. Every business man I have met says his house did not make running expenses during the entire six days. One of the travelling men from a Boston house says he only sold \$85 worth of goods during the whole week, and his expenses were nearly \$3 a day. Other drummers tell similar stories. The business depression that is so general all over the country has been less felt in the South than anywhere else, so the people ought not to complain at one week of it. Southern mills and factories are working full time, and are making money. Everywhere new enterprises are being planned, some of them involving many thousands of dollars, and good, steady workmen in nearly all the trades are at a premium.

Good Advice.

The Democrat, of Natchez, Miss., urges Southern planters not to devote their entire attention to cotton this year with the hope of making a big crop and securing good prices, and it very correctly says that the high price of cotton due to a small crop, would not be sustained if the yield was large. It is more than usually important this year that Southern farmers should plant largely of corn, because there is no hope now for even a fair yield of wheat in the South. Not only is the acreage of wheat smaller than last year, but the condition of the growing crop is very unfavorable, not only in the South, but elsewhere. Of oats the reports for the coming crop are also rather unfavorable. In view of these facts, the press of the South should persistently urge upon farmers the undisputed advantages secured by diversified agriculture, and until Southern farmers do raise their own bread and provisions, it is almost useless to expect to see them prosperous. Of course, as so often shown in the MANUFACTURERS' RECORD, here and there all through the South will be found farmers of the most advanced ideas, growing rich on diversified agriculture. The press of the South might do great good in showing what they have accomplished and thus induce others to imitate their example.

THE Franklin Gold Mine, Cherokee Co., Ga., is said to be clearing \$1,000 weekly.

MACON, GEORGIA.

A Very Fine Southern City, Solid and Progressive.

Extraordinary Growth in Manufactures and Trade.

Small Municipal Debt, Low Taxation and Solvent Business.

SOUTHERN OFFICE,
BALTIMORE MANUFACTURERS' RECORD,
ATLANTA, GA.

MACON, GA., March 7, 1885.

I have been very much impressed with this strong Southern city. It is a model of its kind, and in some respects different from any other place that I know of. Its progress has been peculiar. It has, amid panics, sustained its conservative business, defying depression in money and resisting steadily dangerous innovations in trade.

In six years the taxable property has grown from \$6,500,000 to \$9,250,000. The total bonded debt is only \$657,600, and there is no floating debt. The rate of city taxation is only 1 1/2 per cent., and the city property is assessed at only 60 cents on its true value, this being sufficient to raise the needed money for city expenses. The State and county taxes are 80 cents on the \$100. Her banking operations aggregate over \$72,000,000.

Fifteen years ago the city did no wholesale business; now it has 32 wholesale houses, not including 11 warehouses, 9 of which do a large trade. These wholesale concerns do a trade of fully \$15,000,000. There are 6 liquor wholesale houses, 5 tobacco, 1 hat, 14 grocery, 2 fruit and 4 dry goods. One grocery house alone does a business of \$1,500,000, while one dry goods concern has the largest trade of any house in the State, and probably in the South. The buildings for wholesale are large imposing structures, costly, elaborate, and of modern architecture; great palaces of trade.

It is a remarkable peculiarity of this place that its merchant princes are home boys, sons of merchants or clerks that have, from small beginnings, by enterprise and economy, grown into fortune and large trade. It is another extraordinary feature of Macon's trade, that there have been no failures worth speaking of. As a rule, the merchants anticipate the maturity of their paper to save interest, and the banks often have more money than they can loan. There is little speculation of any kind, but a safe conservative business method prevails universally.

Real estate has steadily advanced in value. In the 33 months up to September 10, 1883, 1,412 new houses had been built, worth \$2,964,000, and since then 600 more have been erected, worth \$600,000, making a total in a little over 5 years of 2,000 houses of all kinds, worth \$3,500,000. Of the 1,412, fully 1,300 were dwellings mostly occupied by their owners. The mechanics, as a rule, have built, own and live in their own houses. On the \$3,500,000 of new property there are not, all told, \$100,000 of mortgages, but they all have been paid for nearly in full. As the best illustration of the good condition of money matters, the sheriff at last sale day did not put up one dollar of property for sale. A large number of new structures are in contemplation.

Nine new and handsome residences are to be immediately begun. A \$40,000 market is to be started, 400 feet long and 30 feet wide. The Central Railroad Company has projected a fine union depot. The East Tennessee, Virginia & Georgia Railroad will build depots. The growth in building began in 1879.

In the last three years a magnificent system of water works has been constructed. The water comes from a vast and inexhaustible spring of delicious water one mile from the city. The reservoir holds 2,500,000 gallons of water. The water pressure is so great that no fire engines are needed.

A street car line has been begun that will penetrate all parts of the city. The place

has an electric light system. A public building has been voted by Congress, with an appropriation to begin with of \$125,000. A new railroad has been projected, running from Macon to Florida, which will be built. The Richmond & Danville Railroad has a branch in contemplation to Macon. In 4 years five brick public school houses have been constructed at a cost of \$100,000, one for \$32,000, one for \$25,000, one for \$20,000, and one for \$16,000. Last year the Central City Loan & Trust Company was started with a capital of \$250,000. The Exchange Bank increased its capital \$50,000.

The manufactures have grown in proportion. The census of 1880 gave the manufactures of Bibb county as follows:

Establishments.	Capital.	Hands.	Wages.	Material.	Products.	Est. Increase.
Brick and tile.....	\$4,500	146	\$13,750	\$13,750	\$17,000	4
Carriages and wagons.....	10,000	25	9,600	9,600	22,000	6
Confectionery.....	10,000	16	5,300	53,000	34,000	1
Cotton goods.....	225,000	366	56,115	405,400	600,855	4
Drugs and chemicals.....	10,000	15	37,000	50,000	125,000	1
Flour and grist mills.....	26,200	15	4,655	165,340	183,669	3
Foundry.....	97,000	104	38,690	74,450	200,500	6
Printing.....	125,500	87	43,300	42,000	130,000	7
Saddlery and harness.....	34,000	48	14,600	35,000	80,000	2
Shoe, do., &c.....	37,000	127	28,100	43,500	150,000	3
Tin, copper and iron ware.....	14,000	16	6,112	15,400	33,994	6
Tobacco and cigars.....	8,800	19	17,640	50,300	40,912	3
	\$609,900	994	\$615,152	\$938,346	\$1,670,100	48
						13

We have an increase of 13 in these lines of manufactures since 1880—6 wagon factories, 2 confectioneries, 1 foundry and 4 printing establishments. Not only this, but many of the old concerns have grown. The Burns Bros. saddlery and harness establishment works 125 hands now.

But, in addition to these, Macon has now 1 chair factory, 1 cotton compress, 1 cracker factory, 2 knit goods factories, 2 paper bag factories, 5 planing mills, 3 plumbers, 1 shirt factory, 1 soda water factory, 1 stereotype foundry, 1 large cotton-seed oil mill, 1 guano factory, 1 furniture factory. The Central Railroad shops are to be included. There are 22 important manufacturing establishments to add to the 14 new ones stated above, making 36 factories not enumerated in the 35 stated in the Census. This does not include, as it should, 12 blacksmiths, 1 broom factory, 10 contractors, 12 dress making concerns, 4 marble yards, 1 mica mine, 7 millineries, 5 photographers, 20 restaurants, 19 shoe shops, 10 tailors and one seed grower, which can be legitimately added to the manufacturing industries of the city. A proper addition of 101 to the 71 already mentioned, giving a total of 172 creative industries, using a capital of \$1,250,000, working 2,000 hands, paying \$600,000 of wages, utilizing \$1,800,000 of material and producing \$3,000,000 of goods.

Macon has no reason to be ashamed of her progress, and stands to-day among the most solid representatives of Southern advancement.

I. W. AVERY.

THE Durham Wooden & Woolen Mills, Durham, N. C., have completed the portion of their factory intended for the manufacture of shuttles, bobbins, spools and other wood supplies for cotton and woolen mills. The factory is a very large and complete one, the machinery of the best character, and run by a 125 horse-power engine. The company intend now to proceed with the erection of their woolen mill, the main building of which will be 50x150 feet.

CONSTRUCTION DEPARTMENT.

WE PUBLISH, every week, a list of every new factory, of whatever kind, projected anywhere in the South; every railroad undertaken, and every mining company organized. This information is always fresh, and, by enabling manufacturers to correspond with the projectors of such enterprises before their supplies of machinery have been purchased, is of great value. Manufacturers will find it to their interest to read this department carefully each week.

ALABAMA.

The Sloss Furnace Co., Birmingham, Ala., will, it is reported, build water works for their own use.

R. B. Kyle & Co., operating a saw mill at Gasden, Ala., have incorporated the Kyle Lumber Co.; paid up capital \$50,000.

ARKANSAS.

It is stated that the Union Bridge Co., of New York, have contracted to build a \$400,000 bridge across the Arkansas River at Van Buren, Ark., for the St. Louis & San Francisco Railroad Co.

FLORIDA.

G. A. Devane has purchased a saw mill from the Lakeland Lumber Co., Lakeland, Fla., and will erect it near Scott or Banana Lake.

J. DeMontmollin, Palatka, Fla., previously reported as intending to erect a grist mill, has ordered his machinery and purchased ground for the building.

L. P. Butler, Palatka, Fla., has ordered machinery for a grist mill which he will establish there.

L. Meyer, Palatka, Fla., has recently established a paint factory.

The contractors Reynolds & Morgan have commenced work at Lake City, Fla., on the railroad to be built to Fort White.

The Rock Ledge House, Rockledge, Fla., burned last fall, will be rebuilt; it will be 3 stories high, 216 feet long.

A large Baptist college is to be built at DeLand, Fla. J. H. DeLand can give particulars.

GEORGIA.

Machinery has been ordered for a new brick-yard at Thomasville, Ga.

Proposals for building the \$25,000 court house to be erected in Milledgeville, Ga., will be received by D. B. Sanford, Milledgeville.

W. F. Bailey & Co., Bartow, Ga., have rebuilt their large saw mill.

The Augusta & Chattanooga Railroad Co. has been organized at Augusta, Ga., by Paul R. Sledge, W. M. Timberlake, Alfred Baker and others, to build a railroad from Augusta, Ga., to Chattanooga, Tenn.; the capital stock is \$4,000,000.

A shingle mill is being erected by Van Gelder at Darien, Ga.

E. O. Thompson, Thomasville, Ga., will enlarge his saw mill.

H. P. Bickford, of Savannah, Ga., contemplates starting a sash and door factory in Waycross, Ga.

A grist mill will probably be built in Athens, Ga.

The Glendale Paper Mills, Atlanta, Ga., are being enlarged and new machinery put in.

C. B. Parker, of Long View, Ga., and J. D. Peacock, of Chauncey, Ga., will build a cotton warehouse 75x100 feet in Eastman, Ga.

Oglethorpe Lodge No. 1, I. O. O. F., Savannah, Ga., have purchased ground on which to erect a large hall.

KENTUCKY.

The Laurel Manufacturing Co. has been incorporated in Louisville, Ky., to manufacture and refine charcoal. Capital \$5,000.

An 80 barrel roller flour mill has been finished at Lawrenceburg, Ky., by G. W. Forston & Son.

Gardner, Bryan & Co., Jeffersonton, Ky., have completed their flour mill.

A 75 barrel flour mill has been built at Wilmore, Ky., by Glass & Jackson.

A. Weisenberger & Son, Payne's Depot, Ky., have just started up their new 100 barrel flour mill.

F. L. Compton, Frankfort, Ky., is building a 100 barrel flour mill.

W. N. Potts & Co., Richmond, Ky., are building a flour mill reported to cost \$30,000.

Reeves & Bradshaw, Elkton, Ky., have contracted to have built a 100 barrel flour mill.

Withers & Co., Horse Cave, Ky., have closed contract for a 75 barrel flour mill to be built at that place.

W. S. Fant, Flemingsburg, Ky., will change his flour mill to the roller system.

A. K. Lair, Georgetown, Ky., will change his flour mill to a gradual reduction mill.

It is probable that S. W. Wade, De Moss-ville, Ky., will engage in lumber and milling business.

Long & Roby, of Knottsville, Ky., will probably build a grist mill at West Louisville, Ky.

Spencer & Barnes, of Buchanan, Mich., previously reported as contemplating the establishment of a furniture factory at Lexington, Ky., report that they will soon prepare to do so.

A company is being organized at Bowling Green, Ky., to erect a flour mill.

B. Smith & Son, Milton, Ky., have completed their 75-barrel roller mill.

MARYLAND.

Rapley & Son, proprietors of the National Theatre, Washington, D. C., lately burned, will rebuild at once.

John Baumgardner & Son, Frederick, Md., have established a soap factory.

Thomas R. Layfield, Salisbury, Md., has purchased a brick yard, which he will shortly put in operation.

The Rasmussen Eastern Cable Railway Co. has been organized in Baltimore by Geo. P. Frick, Louis C. Wachsmuth, Charles W. Rasmussen, John L. Turnbull and Clinton A. Wright, to manufacture cable machinery and appliances for traction of railway cars. Capital stock \$1,000,000.

Andrew B. McCreery will erect a large warehouse in Baltimore, 100x109 feet. Cost, including ground, will be about \$250,000.

John P. Dowell, Samuel F. Sharetts, Charles E. Watkins, Samuel W. Regester, and others, have organized the Baltimore Rink Co., capital \$30,000, to build skating rinks.

NORTH CAROLINA.

The incorporators of the Roanoke & Raleigh Railroad Co., previously reported, are J. H. Rice, of Maine, Geo. B. Loring, Washington, D. C., Hon. Wm. Windom and others. The company intend to build a road from Halifax or Weldon to Raleigh, N. C.

W. M. Cooper, Statesville, N. C., intends to build a \$16,000 hotel.

Spaugh, Miller & Joyce, Winston, N. C., lately reported as preparing to establish a planing mill have received machinery.

G. L. Miller, Winston, N. C., previously reported as intending to rebuild his large planing mill, has commenced work on the foundation; building will be 55x125 feet.

Z. L. Lyon & Co., Durham, N. C., reported previously as intending to rebuild their tobacco factory, have purchased ground on which to erect it.

A large shoe factory is probable in Durham, N. C.

It is now contemplated in Durham, N. C., to issue bonds to extent of \$50,000, for building the proposed water works, previously reported. Permission to issue bonds will be asked of State Legislature. Eugene Morehead, Durham, can give particulars.

A mining company near Haysville, N. C., is putting in a large amount of machinery.

Carpenter, Sons & Co., Maiden, N. C., will enlarge their cotton factory and double its capacity.

A. W. Long, Maiden, N. C., is adding a sash and door factory to his present mill.

J. N. Plaster & Co., Enochville, N. C., previously reported as intending to build a flour mill, will commence work on it in April. Expect to finish by August.

The Durham Street Railway Co., Durham, N. C., has been chartered.

The North Carolina Phosphate Co., of Raleigh, N. C., have purchased phosphate rock land near Wilmington, N. C., and will manufacture fertilizers.

The report that J. W. Graham & M. M. Teague, Old Fort, N. C., contemplated starting a furniture factory, is an error, as Mr. Teague is not interested in the enterprise. Mr. Graham is trying to make arrangements to establish the factory.

Moore & Brady, Newberne, N. C., have secured ground on which to build a new fruit and oyster canning factory.

SOUTH CAROLINA.

A new gas company is rumored in Charleston, S. C.

The United States Supervising Architect, Washington, D. C., will receive proposals till March 31 for building a wharf at Charleston, S. C. Contractor who lately agreed to do the work for \$28,995, has thrown it up.

R. C. Gilchrist, John C. Mallonee and G. R. Whitridge, Charleston, S. C., report that the capital stock, \$1,500,000, of the Carolina Seaboard Railroad Co., the organization of which was previously reported, has all been taken. The road is to run from Charleston, S. C., to the North Carolina State line.

TENNESSEE.

B. F. Willard & Son, Maryville, Tenn., who, as previously reported, will rebuild their saw mill, &c., desire to purchase second hand 40 horse-power engine and boiler.

The Jackson Milling and Manufacturing Co. has been incorporated in Jackson, Tenn., and has contracted for machinery for a 100 barrel flour mill.

The buggy factory reported last week as to be started in Knoxville, Tenn., will be established by James A. Nisonger and John Geiger who expect to commence operations about April 1st.

A. M. Johnson & Nesbit Hazlehurst, Chattanooga, Tenn., have purchased for \$29,500 the Lookout Rolling Mill at that city, which has been idle for some time and it is understood that they will put it in repair and start it up again.

The Tennessee Brewing Co., Memphis, Tenn., will repair and refit their brewery at a cost of about \$50,000.

Williams & Co., Memphis, Tenn., whose planing mill was reported last week as burned, (loss \$18,000) will rebuild and put in new machinery.

The \$15,000 college to be erected at Cleveland, Tenn., reported some time ago, will probably be commenced early in the spring. The Building Committee of the Centenary Female College, Cleveland, can give particulars.

A \$15,000 flour mill will probably be built at Sevierville, Tenn.

The flour mill reported in our last issue as being built in Humboldt, Tenn., by Ing & Jackson, should be by E. W. Ing & Co., (that being the firm name.) The other flour mill is being erected by Mr. Shiele.

Smith, Clark & Co., Clarksville, Tenn., are building an addition to their saw mill.

There is some talk of a \$10,000 match factory in Knoxville, Tenn.

There is a prospect of a large brewery being erected in Chattanooga, Tenn.

Tadlock & Morrow, Sweetwater, Tenn., are erecting a saw mill.

A large flour mill will probably be erected at Dyersburg, Tenn.

TEXAS.

Maffett & Son, Lancaster, Texas, are building a 100 barrel flour mill.

The Brenham Gas Co., previously reported as contemplating putting in new machinery and resuming operations, have ordered machinery for making water gas.

A large hotel is talked of as probable in San Antonio, Texas.

Longview, Texas, it is reported is talking of a cotton-seed oil mill.

VIRGINIA.

McDonald Bros., architects, Louisville, Ky., have been awarded contract for plans for the Southwestern Lunatic Asylum to be erected at Marion, Va., at a cost of about \$100,000.

The Surry Lumber Co., capital not less than \$20,000, nor more than \$40,000, has been incorporated in Virginia, with officers—R. T. Waters, president, F. E. Waters, vice-president, both of Baltimore, Md. Have purchased, for \$27,000, extensive property and will manufacture lumber, cut railroad ties, &c.; principal office to be Surry, Va. Will also build a short railroad.

The Crimora Manganese Mines, near Staunton, Va., have been purchased by the American Manganese Co., (Limited), of Pittsburgh, Pa., and will be operated on an enlarged scale.

A union depot, estimated to cost \$100,000, is to be built in Richmond, Va.

The Beverly Ore Mines, Grove Hill, Va., (J. C. Harvey, Superintendent,) have lately put in new machinery, and will be worked on an enlarged scale.

Justin McCarthy, Washington, D. C., has received contract to build the court house at Harrisonburg, Va., for \$26,740.

The Kinney Tobacco Co., of New York, will build a tobacco factory in Richmond, Va., 272x100; will probably be 5 stories, and require several million bricks.

Roanoke, Va., will decide by vote, April 8, whether or not to spend \$20,000 for a sewerage system. T. J. Teaford, Roanoke, can give particulars.

WEST VIRGINIA.

Luther Martin, of Grafton, W. Va., is building a saw mill at White Day, W. Va.

M. Emes, of Shamokin, Pa., reported in our last issue as having purchased the property, (saw mill and lumber,) of the Oakdale Coal & Lumber Co., at Cabin Creek, W. Va., will move the saw mill to an adjoining tract of timber land.

LOCKWOOD, GREENE & CO.
MILL ENGINEERS
Office, 65 Westminster St., Providence, R. I.
Carefully prepared plans, specifications, and estimates furnished for the construction, equipment and organization of new mills and the revision and improvement of old.

BURNED.

Penn's Cotton Press, (J. M. Parker, manager) New Orleans, La.

Saw mill of J. D. Gray, Freeport, Fla.

Hub and spoke factory of M. R. Campbell, Tullahoma, Tenn. Loss about \$10,000.

Woolen mill of J. P. Clifton & Son, Weston, W. Va. Loss \$20,000.

A Big Mill to be Built.

CITRONELLE, ALA., Feb. 28, 1885

Editor Manufacturers' Record:

We don't expect to rebuild our mills that were recently destroyed by fire on M. & O. R. R., but contemplate building new mills at some other point, probably on the New Orleans & North Eastern Railroad. The outfit will consist of two circular saws and two gang edgers, with a daily capacity of 50,000 feet, and dry kiln and planer with 20,000 capacity. Yours very respectfully,

CECIL & CO.

Planing Mill to be Rebuilt.

MEMPHIS, TENN., March 3, 1885.

Editor Manufacturers' Record:

We will rebuild at once and put in improved machinery, which has been selected. Will use same engine, boilers, &c., for a few months, until we decide on the best to be had and then get them. WILLIAMS & CO.

A Ship Yard at Jacksonville.

JACKSONVILLE, FLA., Feb. 28, 1885.

Editor Manufacturers' Record:

We have a railway here, upon which we can take vessels of 300 to 400 tons, but are now building a much larger one with heavy gear and track, with twelve-inch cylinder engine, and, when finished, expect to be able to take on vessels of 1,000 tons.

Yours respectfully,

JACKSONVILLE MARINE RAILWAY CO.

New Flour Mill.

ENOCHVILLE, N. C., March 2, 1885.

Editor Manufacturers' Record:

Our new flouring mill is to be erected in April. Size of building 25x40 feet. Will put in machinery as soon as the house is ready. Expect to be running by August. Will use burrs. Expect to use all the necessary machinery for a first-class mill. Expect soon to attach a cotton-gin. Will run by steam. Yours respectfully,

J. N. PLASTER & CO.

MEMPHIS, TENN., March 6, 1885.

Editor Manufacturers' Record:

We have engaged in the manufacture of elevator purifying pumps, wood-suction, and rubber button chain pumps, &c., making a specialty of elevator pumps for purifying cistern and well water. Our product is all first-class and we have no cause to complain of the demand for our goods.

Respectfully yours,

PARKER & COFFEE.

TALLADEGA, ALA., March 2, 1885.

Editor Manufacturers' Record:

I contemplate adding a corn mill (not a flour mill as reported) to my cotton-seed oil mill at this place. Respectfully,

W. E. VANCEY.

Good Chance to Invest \$2,000.

OLD FORT, N. C., March 7, 1885.

Editor Manufacturers' Record:

The rumor concerning partnership between Mr. Teague and myself was not correct, but I want a partner with \$2,000 or more, or a good line of machinery and engine. The furniture factory is here and it had a good trade, which could be easily increased. If you can send capital this way do so.

Yours truly, J. W. GRAHAM.

A Big Tobacco Factory.

NEW YORK, March 9, 1885.

Editor Manufacturers' Record:

We contemplate building a factory in Richmond, Va., for the curing and handling of leaf tobacco—to be 272x100 feet.

Very respectfully,

KINNEY TOBACCO CO.

A Cotton Factory Wanted.

SCOTTSVILLE, VA., March 6, 1885.

Editor Manufacturers' Record:

I fear the cotton-factory stock cannot be taken here, as our people have very little money. A large brick building near water-power has been offered at a very low price, to be taken in stock, and a few hundred dollars subscribed, but not enough to secure the success of the enterprise. Can't you send us some enterprising man with capital enough to carry on the business?

Yours truly, JACOB L. MOON.

MORGANTOWN, N. C., March 5, 1885.

Editor Manufacturers' Record:

We have recently added machinery to our garnet mills to increase the capacity from one to three tons per day. We have very recently developed some very rich mines of pure crystal garnets which we are now working. Very truly yours,

C. A. SHUPING & SONS.

SHAMOKIN, March 4, 1885.

Editor Manufacturers' Record:

The property purchased in West Virginia on February 25, 1885, consisted of steam saw mill and a quantity of sawed lumber. Will move the mill to an adjoining tract, and cut white oak and poplar.

Respectfully yours, M. EMES.

LEXINGTON, N. C., March 5, 1885.

Editor Manufacturers' Record:

H. E. Robertson & D. M. Miller will commence the manufacture of tobacco in Salisbury, N. C., about 1st of May; M. L. Holmes & J. D. Gaskill will commence in April; Eugene F. Johnson will commence about 1st of May; all in Salisbury, N. C.—All the above are new firms, and will do a large business. Respectfully,

ROBERTSON & MILLER.

WINSTON, N. C., March 9th, 1885.

Editor Manufacturers' Record:

We have our planing mill finished and the machinery set ready for the belts, which we expect every day. We got all our machinery, (a full line of new and improved machinery,) from the firm of Goodell & Waters, Philadelphia, Pa. We expect by the 12th of this month to be in readiness to furnish all kinds of material for house building, also to contract for all kinds of brick-work. We are now doing the brick-work on Payne, Lunn & Morris' 4-story tobacco factory of this place.

Yours respectfully,

JOYCE, SPAUGH & MILLER.

Saw Mill Finished.

PULASKI, TENN., Feb. 28, 1885.

Editor Manufacturers' Record:

We have just completed a saw mill in addition to our works, and are prepared to furnish to wagon and carriage works all kinds of hickory lumber, spokes and shaft bars.

Yours, &c., DICKSON & WATSON.

KNOXVILLE, TENN., March 4, 1885.

Editor Manufacturers' Record:

James A. Nisonger and John Geiger are the names of the parties who have made arrangements to establish here a buggy factory. They will commence operations about the first of April and expect to turn out 300 buggies annually. It is regarded as a strong and reliable firm. Truly &c.,

C. W. CHARLTON.

Falls City & Georgia Mining Company.

VILLA RICA, GA., March 3, 1885.

Editor Manufacturers' Record:

The number of stamps to be erected at our mine at present is ten, or two five batteries. One crusher and two concentrating tables will be used. Our main building is large enough to conveniently hold ten more stamps and all necessary accompaniments. The power employed will be sufficient to drive the additional batteries should we decide to put them in. The shaft house, blacksmith shop, &c., are completed. The mill building will be ready for the machinery about March 15th. The machinery is now en route,—the stamp mill from the Mecklenburg Iron Works, of Charlotte, N. C.; the remainder, engine, boiler, crusher, concentrating tables, &c., from Philadelphia. We will probably get started about the first of May next.

The Eden Mining Company, of Elizabethtown, Ky., have commenced work with a five stamp mill, about one mile from town, (Villa Rica, Ga.) They have a good mill building and power to run five more stamps. They have a shaft down nearly 50 feet and are taking out some very fine looking ore. I understand it is the intention of the Company to extend their works at an early date. Very respectfully,

CLARK WATKINS.

DURHAM, N. C., March 9, 1885.

We will very soon commence the erection of our new tobacco factory. It will be used exclusively for the manufacture of smoking tobacco.

Yours truly,

Z. I. LYON & CO.

An Important Contract for American Manufacturers.

The Henry R. Worthington Hydraulic Pump Works, of New York, among the largest manufacturers of pumps in the world, have secured the contract from the British War Department for the construction of the pumps for the supply of water to the British forces now operating in the land of the Mahdi. This is the largest order ever given at one time by any foreign government for this class of goods and for such an important service. So pressing are the orders, that these works will be driven to their full capacity, and shipments made as fast as possible to England, and thence to Suakim, where they will be sent into the interior and set up at intervals of about 30 miles. An inquiry has been made in this country for 360 miles of 4-inch piping for the service, but it is likely that time being so precious, the order will be filled in Great Britain. Messrs. Jackson & Tyler, South Howard street, Baltimore, are the agents for the Worthington Pump.

MR. GEO. V. CRESSON, proprietor of the Philadelphia Shafting Works, 18th and Hamilton streets, Philadelphia, has issued two very handsome sheets 19x24 inches, illustrated with fine cuts of some of the different styles of pulleys, gearing, shafting, couplings, hangers, &c., turned out at these extensive works. These sheets will prove of much interest and value to those who need or expect to need anything in this line. They will be sent upon application.

THE advertisement of A. C. M. in our "Business Chances" column offers a fine opportunity to any one who wants to engage in cotton manufacturing South. The mill is in a good locality and favorably situated in every way.

THE Iron Age, Birmingham, Ala., has issued a special "Worlds Fair" edition, devoted to showing up the remarkable mineral wealth of Alabama, the development of the coal and iron interests of the State and the growth of Birmingham. It is a most excellent production and deserves a wide circulation.

Law Department.

Edited by B. HOWARD HAMAN, Attorney at Law, Baltimore, Md.

It is the province of this Department to reply to enquiries that may be made by our patrons respecting the legal aspects of any matter that may arise in their business. Any questions as to doubtful points of law will be answered without charge in this column. All questions submitted must be accompanied by the name and address of the sender, not however, for publication. Letters should be addressed, Editor Law Department, MANUFACTURERS' RECORD.

BIRMINGHAM, ALA., March 3, 1885.

Editor Law Department,

Manufacturers' Record:

Dear Sir—The company referred to in my inquiry of February 19 is incorporated under the general laws of this State. The section of the code giving authority to condemn property reads as follows:

"Corporations organized under the provisions of this article for mining or manufacturing purposes shall have power to construct and operate a railroad, tramway, turnpike or canal for their own use and purposes to and from their works or place of business, or to connect with some navigable stream or with some existing railroad, turnpike or other public highway, not to exceed ten miles in length, and shall have the right to condemn for the use of such road the right of way in the lands over which the road may pass, on payment to the owner of just compensation therefor. And the general laws applicable to writs *ad quod damnum* shall apply in all such cases."

Will this give them the right to condemn for an entry or tunnel through the old workings of another company for a road and for drainage? If not, how can such a right be secured? COAL COMPANY.

Reply—Your question is such an interesting one that we have examined all the authorities carefully and have given the subject thoughtful consideration. Such an underground entry as you contemplate making would not be permitted by your law, unless it were absolutely necessary for the purpose of connecting the works with some "navigable stream, railroad, turnpike or other public highway." It would not be permissible merely for the purpose of drainage or better operating of existing works. The right of "eminent domain" is strictly construed against the person who wishes to exercise it. You should have a comprehensive "Lateral Railway Act" passed in which such rights as you wish are clearly given, or your individual company could apply to the legislature for such powers. The former course would be much preferable, as it would benefit the whole mining community.

FREDERICK, MD., March 7, 1885.

Dear Sir—I have read your legal column with a great deal of interest, and would like to get a little law myself this week. If a person signs a promissory note by way of endorsement, to give it credit merely, is he not entitled to a notice that the paper was not paid at maturity, and thus a legal protest? If he does not get such a notice and protest, is he not released?

Reply—No, to both questions. Such a person as you describe is simply a joint maker of the note.

BALTIMORE, MD., March 5, 1885.

Dear Sir—How far may a married woman be compelled to pay for goods sold to her, to be used in her family?

Reply—Not at all, unless (1) she is transacting business under the special act for married women traders, or (2) the debt is evidenced by the joint paper of husband and wife, or (3) the wife promises in writing to bind her separate property for the debt. In the last-named case the husband's assent is necessary, though his signature is not. This is Maryland law, of course. The law on this interesting subject differs in each State—as variable as the sex to which it relates, and is often past finding out.

THE Southern World of Atlanta, Ga., a very enterprising literary monthly, will here, after be published by the extensive publishing company of Jas. P. Harrison & Co., of that city, who have purchased an interest in it, and in return have sold an interest in their business to the proprietor of the Southern World. This arrangement will doubtless prove profitable to both parties.

ANY one desiring to invest in coal property in Alabama will find an offer in our Business Chances that is worth investigating.

The Exposition.

NEW ORLEANS, LA., March 6th, 1885.

I have been mentally saying: "What does this Exposition mean?" How much it means cannot be told. Every visit to it widens and deepens the impressions of its significance, and I do not expect ever to know all it tells. It really is an inexhaustible mine—an unknowable study.

Still I have learned some lessons—a few letters of its large alphabet.

Will you permit me (although hardly pertinent to your columns, yet in a spirit of justice) to say a little of the general aspects of the Exposition?

First, its *fruit show* may be regarded as the greatest the world ever witnessed. A book could be written upon it. The oldest horticulturist could find revelations in it. It has been a school to anyone who is not a dullard—who does not think that he can learn nothing and will not observe. I thought I knew something about fruit; I know better now.

Look at the tropical fruits and flowers in that fairyland under the roof of that horticultural hall. One yearns to have the temerity to attempt a description of it under the splendors of the electric light, with the playing fountains, the vistas of light and shade, the intoxications of its perfumes; but let some rash and garrulous youth, with irruptive rhetoric, try it. I know better and forbear.

Parker Earle is the Chief of the Horticultural Department and he deserves the unquestioned success he has won. The lustre of this achievement is a sort of finishing touch of glorious color to the picture of a life of beautiful usefulness. Then there is the stock side of the show—the Agricultural Department. Who ever saw such an array of horses, sheep, hogs, poultry, such hills of butter and mountains of cheese? It is to be regretted that the South did not do better. She had an opportunity to show the world what Holsteins, Devons, Short-Horns, Jerseys, she could raise. She has these. She did not respond as she should. The world must learn her more slowly. The South will have to sit belated at least ten years for missing this opportunity. But no use in idle regrets; all that could be done was done. Mr. Geo. Y. Johnson, of Kansas, the very capable and celebrated manager heretofore of stock shows, vindicated by his management, the wisdom of his selection by Hon. Geo. B. Loring, the Commissioner of Agriculture. Mr. Johnson was ably seconded by his assistants, among whom should be named Mr. E. Haren. There is the agricultural side of the show in the Government buildings.

It is always superfluous to say that the North and West improve their opportunities for advertising. They know how to "put the best foot foremost." Many a Southern man will leave his home and go West and North, because of the exhibits of these sections. But it is quite certain that many a Northern and Western man will move South, by reason of what the South displays. While the South does not in any case make the display she should, from the agricultural aspect, yet enough is displayed to convince anyone of her many-sidedness of production. It is significant to see how the well-to-do Western men hang around the corn and wheat, and to see the surprised way they look at the bales of hay. They pull these open, smell them, peer at them every way. Even the women inspect them curiously. The hay, the clover, timothy, red top, seemingly do more than all else to strike them; clover seems to have a magical power; it confirms hesitation, interests indifference. I know from my own participation in parties of inspection, that the hay displays of the South will secure more wealthy Western stock-raisers than all other exhibits. I have heard some of the most conspicuous stock-breeders declare their determination to sell out their land at fifty to seventy dollars per

acre, and move South where they can buy land at ten dollars per acre; where they can raise clover and stock better than at home, with all the advantages of climate South.

There is no mode of even half-way learning this Exposition, but by care and method. It may be a pastime to the indifferent or mere sight-seeing visitor, but it is a very great study to any man who wants to know the South. No matter how long one may have studied her, here are many fresh lessons to be learned.

M. B. HILLYARD.

List of Patents

The following Patents were granted to citizens of the Southern States, bearing date Mar. 3, 1885. Reported expressly for this paper by Louis Ragger & Co., Mechanical Experts and Solicitors of Patents, Washington, D. C.

Allfree, J. B., Cumberland, Md.	Flour-bolt.....	313,152
Archer, B. F., Marietta, Miss.	Harness-saddle.....	313,153
Archer, R. W., Beeville, Tex.	Combination-tool.....	313,272
Atkin, S. T., Georgetown, Texas.	Water-cup for stove-pipes.....	313,273
Becker, V. H., Memphis, Tenn.	Cooling coils of gas-condensers.....	313,047
Blum, C. J., Salem, N. C.	Grist-mill.....	313,166
Burns, Hays, Double Springs, Ala.	Ox-yoke.....	313,052
Cantrill, J. E., Georgetown, Ky.	Stock-car.....	313,173
Coffee, C. C., Memphis, Tenn.	Water-elevating bucket.....	313,288
Cross, Washington, Pulaski, Tenn.	Tire-tightener.....	313,062
Dodds, Thomas, Cedartown, Ga.	Motor.....	313,188
Dueber, J. C., Newport, Ky.	Watch-case center.....	10,566
Duvall, Reid M., Nashville, Tenn.	Hedge.....	313,408
Gannaway, Edward, Nashville, Tenn.	Automatic electrical cut-off.....	313,313
Gilbert, J. H., Big Sandy, Tenn.	Device for watering stock.....	313,317
Gilmer, Joseph, Brunswick, Ga.	Car-coupling.....	313,200
Guilford, J. H. N., Whigham, Ga.	Fish-plate-fastening machine.....	313,418
Haselton, D. B., Charleston, S. C.	Cotton-harvester.....	313,421
Haselton, D. B., Charleston, S. C.	Cotton-harvester.....	313,422
Hopson, Lucien, Lampasas, Texas.	Projectile.....	313,075
Hudson, B. F., Alvarado, Texas.	Apparatus for emptying barrels or other receptacles containing liquids.....	313,077
Jensen, Ole T., Cresco, Texas.	Hame-fastener.....	313,336
Jesse, C. C., Charleston, S. C.	Hominy-mill.....	313,337
Keller, J. F., Shepherdstown, W. Va.	Draft mechanism for grain-drills.....	313,341
Leder, Geo., Demopolis, Ala.	Artificial fuel.....	313,216
Loddell, C. S., Stormville, Miss.	Can-opener.....	313,351
Long, W. L., Melrose, Va.	Double-tree.....	313,433
Mann, W. I., Banwood, W. Va.	Tuyere.....	313,088
Mathes, W. M., Gatesville, Texas.	Meat-chopper.....	313,356
Mergenthaler, Ottmar, Baltimore, Md.	Machine for producing printing bars.....	313,224
Michalson, L. A., Dallas, Texas.	Caster and insect-guard combined.....	313,225
Moss, J. L., and N. Littell, Rome, Ga.	Extracting oil from formed oil-cake.....	313,440
Ramsdell, Ildo, Atlanta, Ga.	Producing transfers of drawings, engravings, &c.....	313,106
Ramsdell, Ildo, Atlanta, Ga.	Treating paper to preserve it against the corrosive action of acids.....	313,107
Ray, W. W., Springfield, Ky.	Pad for medical purposes.....	313,238
Scales, C. H., Covington, Ky.	Tobacco-box.....	313,112
Stewart, W. H., Louisa, Ala.	Churn.....	313,248
Thurmond, W. H., Forsyth, Ga.	Car-coupling.....	313,386
Walling, Mary C., Brenham, Texas.	Cotton-picker.....	313,139
Watts, J. W., Montgomery, Ala.	Thill-holder for harness.....	313,266
White, L. B., Norfolk, Va.	Plow.....	313,394
Williams, C. W., Cave City, Ky.; E. B. Ives, New York, N. Y. and G. S. Barnum, Atlanta, Ga.	Telegraphic apparatus.....	313,462
Woolsey, W. W., Aiken, S. C.	Sanitary ice-chest pail.....	313,463

THE Stoney Landing Co., of Charleston, S. C., whose process for making artificial bricks from sand and lime was lately referred to in our columns, have issued an 8-page circular, giving particulars as to their patents, and estimated cost of establishing factories for making these bricks, profits, &c. Territorial and shop-rights to manufacture these bricks will be sold, so that those contemplating a business of this kind may find it of value to investigate the merits of this process. Full particulars, circulars, &c., can be obtained from the company in Charleston, or from Mr. James G. Holmes, Holiday street and Exchange Place, Baltimore, Md.

A Big Coal Mining Company.

The Excellence of Jellico Coal.

Editor Manufacturers' Record:

It was in the month of June, 1883, that the railroad between Knoxville, Tennessee, and Livingston, Kentucky, was completed, thus opening up to commerce all that rich territory of country between those two points. The East Tennessee, Virginia and Georgia Railroad, having become possessed of the Knoxville and Ohio Railroad, met the Louisville and Nashville Railroad at Jellico, Tennessee, on the line of Kentucky. The section of country about Jellico was first known as the Tillico purchase, it having been purchased from the Tillico tribe of Indians, and from Tillico arises the name Jellico, a large creek on the Kentucky side being called Jellico and then a range of mountains was called Jellico.

It was only slightly known until the last three or four years that coal was to be found in the Jellico mountains about Jellico, and the superior quality of the coal was entirely unknown. Soon after the railroad was completed Mr. Brent R. Hutchcraft and Mr. James W. Fox, both of Kentucky, opened up the mines of the "Jellico Mountain Coal and Coke Co. at Newcomb, Tennessee, and soon thereafter the "Standard Coal and Coke Co." mine was opened at the same place (which is three miles from Jellico) by Mr. McClure and Mr. McCroskey. And very soon after that another mine was opened by the East Tennessee Coal and Coke Co., near Jellico on the Kentucky side.

This Jellico coal, in consequence of its superiority, soon gained a wide spread reputation and was acknowledged to be the best coal wherever it was introduced. Mr. Hutchcraft, who found these coal lands soon thereafter, or in the early part of 1884, got some Atlanta, Ga., parties, Mr. Geo. W. Denison and Mr. and Mrs. M. E. Thornton, to join himself and Mr. Fox in the development of another more extensive coal mine in the main Jellico mountain near Jellico; first purchasing a very large area of as fine coal land as there is in the world, situated principally in Whitley county, Ky., and the balance in Campbell county, Tennessee. This company was chartered by the legislature of Kentucky, May 10th, 1884, as the "Main Jellico Mountain Coal Company," with a capital of five hundred thousand dollars in shares of one hundred dollars each. They named their post office "Kensee," Kentucky. It is one mile and a quarter above Jellico on the L. & N. R. R., 66 miles from Knoxville to their switch, from which point it is one mile and five-eighths up to their mines, which are connected with the L. & N. R. R. by a broad-gauge railroad track,—they having a locomotive of their own.

The Main Jellico Mountain Coal Company commenced work to develop their mines in April, 1884, and commenced shipping coal on January 24th, 1885, passing successfully through the late financial depression. The entry work now runs back into the main Jellico mountain about 1,600 feet, with three side entries and an air course entry parallel to the main entry and connecting with a huge air shaft. There is now room for about 265 miners and will soon be enough room for 350 miners. The company has built 40 miners' houses and will soon build about 40 more. The tippie house and drum house are built of very heavy timbers and are exceptionally substantial, with the very best of all the necessary appliances in each. The scale pits under the tippie house are of rock masonry, and the scales, which are of Howe make, are extra large, being 67 feet long and double track. The coal for prime lump is run over 14 foot 4 inch screen and is weighed in a sheet iron weigh-box before running in the car, in order to give each miner credit for his work. The incline railroad down the mountain from the drum house to the tippie house, is 707 feet long, double track, and is capable of running down a bank car of coal in twenty-two seconds. A bank

car will hold 2,600 lbs. of coal. Therefore, it will be observed that the capacity of this mine is at least 600 tons per day, as the capacity of the mine can be run to the full capacity of the incline. However, some time must be allowed for replacing loaded cars with empties. Their storehouse is the largest in that part of Kentucky, and they carry a large assortment of goods of every description, which are sold to the miners and to the natives.

The coal mined by this company can be shipped both North and South, wherever the L. & N. R. R. and the E. T., Va. & Ga. R. R. runs, at reasonable rates of freight. The analysis of this coal shows for itself. It is as follows:

ANALYSIS.	
Carbon.....	63.10
Volatile Matter.....	32.86
Moisture.....	1.90
Ash.....	2.14
<hr/>	
Sulphur.....	100.00
	0.70

This analysis was made by Prof. Robert Peter, the celebrated chemist of Lexington, Ky., from a sample of the coal furnished him by Prof. John R. Proctor, the geologist of Kentucky, whose assistant, Prof. A. R. Crandall, himself, got it out from the side of the main entry in this mine, and took the sample of coal from the top to the bottom of the coal measure at a place before they got far under the mountain. There are six measures of coal in this land; one at the top, of small area, and only about 18 inches thick, is cannel coal; another measure below the one being worked is workable; another, underlying the whole territory of this company, which shows itself in the bed of the Clear Fork of the Cumberland River, from which the natives got out coal in great quantities last summer while the Clear Fork was nearly dry, is five feet in thickness, and is said to be of superior coal; but no analysis has been made of it. The measure of coal now worked by this company is about one-third up the mountain, and runs from three feet to four feet and a half in thickness, and is easily mined. This coal is hard and shines bright, and all who have used it recognize its superiority for the grate and for all domestic purposes especially. It is semi-bituminous, and makes an intense heat; ignites easily and burns into a clean red ash, without making any clinkers. It is carefully mined and thoroughly screened. The steam coal is over one-half prime lump coal, the remainder being nut coal; and some even prefer the nut coal for steam purposes. The prime lump coal of this company is said to be simply unsurpassable for domestic use. It is not a good coking coal, because it is too hard.

The introduction of the "Jellico Mountain Coal" into Kentucky, Tennessee, North Carolina, Georgia and Alabama, marks a new era in the coal industry, and is a matter of no small importance. Dealers like this Jellico coal because it will not slack in their yards and they can keep it in stock.

These Jellico Mountain lands once sold for three cents per acre. The farmers from whom this company bought them knew but little of this hidden treasure, and which the construction of these railroads in 1883 brought to light. One of the old farmers, Mr. Lawson, who owned most of the land, said recently, pointing to the track of the L. & N. R. R., which runs through the land, "After that thing run through here so near my house, I didn't want to live here any longer, anyway, so I thought I'd just sell my land to you fellers and buy som'ers else. We couldn't get out the coal any way."

The area of this coal field is only about ten miles square; and this coal is claimed to be the best of its kind in the world.

ADVERTISERS wishing to reach the manufacturers of all classes, mining companies, steel, iron and hardware dealers of the entire South, cannot find a better medium than the BALTIMORE MANUFACTURERS' RECORD. We are always prepared to furnish proof of our claims as to circulation.

Textile Machinery Exhibited at New Orleans by Geo. Draper & Sons, of Hopedale, Mass.

The exhibit of George Draper & Sons at the World's Exposition, in New Orleans, is more than ordinarily complete, and it cannot fail to interest all who are engaged in manufacturing cotton yarns and fabrics. They have 5 full-sized machines in operation, and a large number of smaller articles and attachments arranged for convenient examination.

The Roving frame is said to require less space, to run at higher speed, and to produce as even a product as any other.

The spinning-frame has the evenest and all modern improvements, and will illustrate very clearly the economy of running at high speed and spinning filling on ring-frames.

The spooler has an automatic knot-tying device which saves time and makes a perfect knot without long ends. The spindle has advantages not to be obtained in other machines.

The twister is from entirely new patterns, and is styled "1884," to distinguish it from those previously made by this concern. It is only 30 inches in width, has an 8 inch cylinder with long central bearing, and a shaft underneath the cylinder, carrying an idler-pulley for each band.

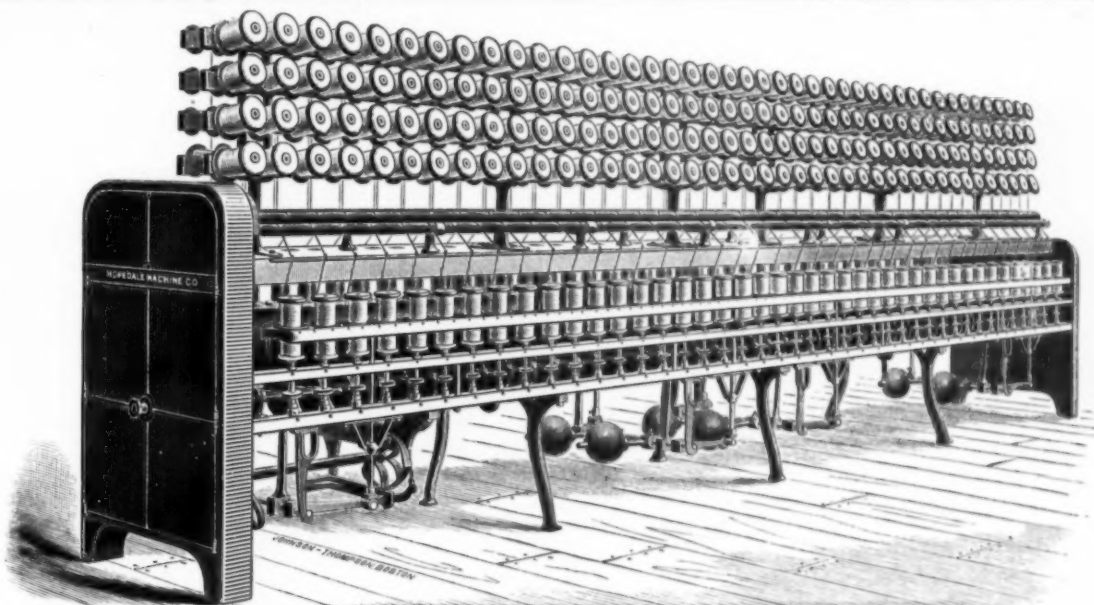
An improved method of banding, without knotting the band, has been adopted on this twister, which allows each band to be put on of the same length, the tension being given by the weight of the idler-pulleys and shaft carrying them. By this arrangement several very important advantages are secured, viz.: The bands are continuous (without knots); this will add greatly to their durability. They are not too tight, and cannot cause excessive friction and consequent loss of power; nor are they too loose, making imperfect work and waste; and, being neither tight nor loose, the durability of the band is greater than can be obtained in any other way.

The illustrations in connection with this article show the machine set up for use. The arrangement of change gears, both for twist and traverse, is convenient; and the range of change of twist by changing twist gear, which is on the cylinder, is very extensive. If still greater range is desired, it can be obtained by changing the gear on the stud carrying the intermediate gear. This stud gear has still wider range than the cylinder gear.

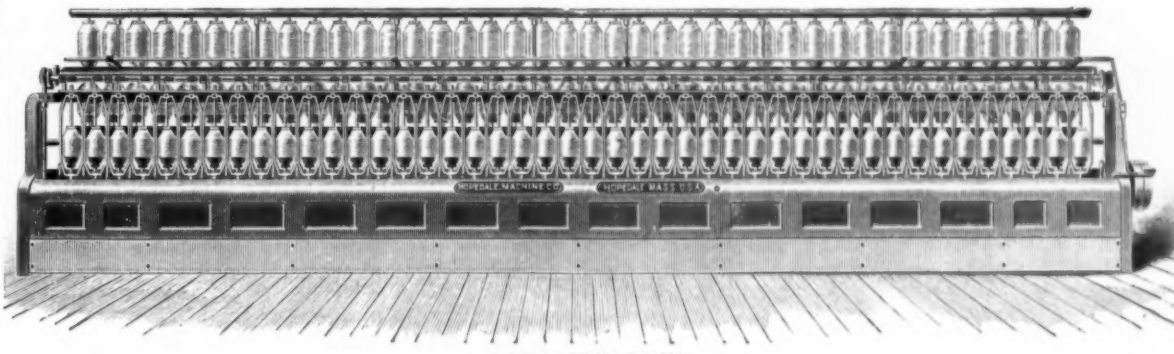
As is well known, it is most desirable to put the first layer of yarn on the empty bobbin as close as it can be laid on, and in changing numbers or twist, it is difficult to arrange traverse motion to accomplish this; but with this new arrangement, change gears are easily adjusted, and the widest range readily attainable. The heart-shaft is driven by a worm-gear which prevents any backlash at top and bottom of bobbin. By loosening one nut conveniently located, the worm can be thrown out, and the ring rail set at any required point, without trouble. The box covering the geared end, it is said, makes this machine the neatest and most easily taken care of in the market.

The same principles which have given the Sawyer Spindle the lead as a spinning spindle, are applicable to a twisting spindle, and operate in the same way—allowing it to be run at higher speed with greater steadiness, insuring greater durability, and requiring less power; consequently reducing the cost for attendance and cost of production. For prices and circular, giving dimensions and weight of all sizes, and twist table for different combinations of gears, address Hopedale Machine Co., or George Draper & Sons.

The entire exhibit of Messrs. Geo. Draper & Sons at New Orleans is under the management of Mr. William Welch, who is well known to manufacturers throughout the



"1884" TWISTER, SHOWN AT NEW ORLEANS BY GEO. DRAPER & SONS, HOPEDALE, MASS.



A NEW ROVING FRAME.

country as a practical and successful spinner of more than thirty years' experience.

Every opportunity will be given to examine the machines in detail while in operation; and we cannot do better than advise all who can possibly do so, to avail themselves of this opportunity to examine and become posted in the operation of these latest improvements in machinery for the manufacture of cotton goods.

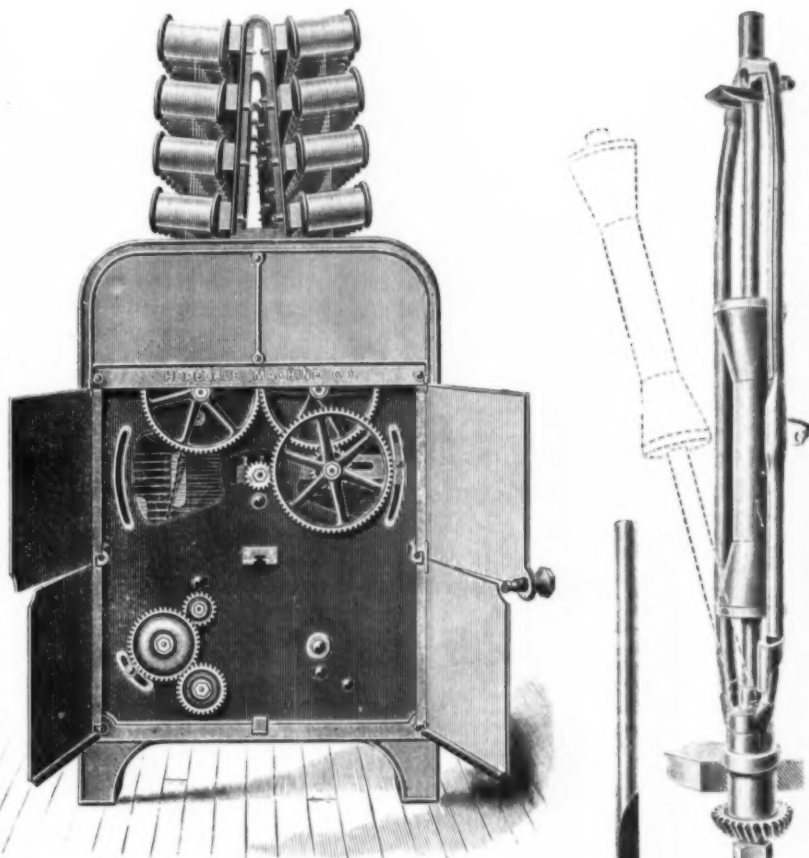
In a late issue of the MANUFACTURERS' RECORD we published a description of a new roving frame, but the cut that was intended to illustrate this frame was omitted, and hence we repeat the description:

Three or four years ago Messrs. George Draper & Sons, of Hopedale, Mass., introduced an improvement in spindle and flyer for roving frames, and a limited number have been in operation in old frames since that time; also for the last two years new frames for the entire product of a 50,000-spindle mill, showing a production superior in quality and greater in quantity than had before been obtained, thus proving that the improvement was a substantial one and worthy of the best efforts to induce manufacturers to adopt it.

The Messrs. Draper have recently completed and put in operation a No. 2 Roving Frame complete with $6\frac{1}{2}$ inch space, $9\frac{1}{2}$ inch traverse, and $5\frac{1}{4}$ inch diameter of full bobbin, designed to make from 1 to 4 hank roving. This frame is in operation in the World's Exposition at New Orleans, La., and is worthy of the most careful examination by all who realize the fact that there is room for large improvement in processes through which the cotton fibre must pass before it arrives at the spinning room.

In addition to the improved spindle and flyer, this machine combines other essential points of great benefit, not found in others of its class.

The spindle and flyer, of which an excellent representation is given with this article, is so constructed that it will carry its load and produce a perfectly even roving at



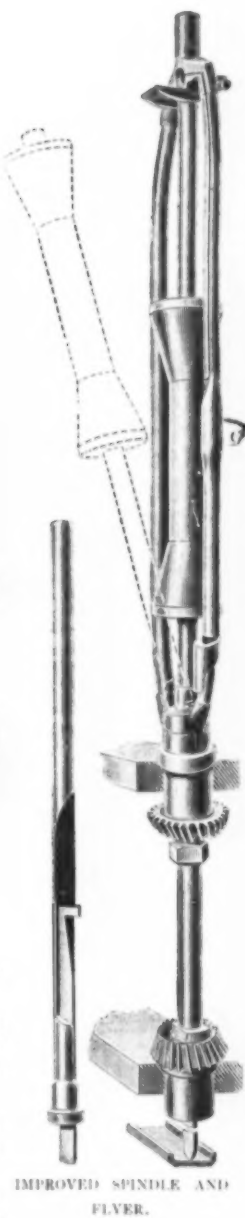
BOX OF GEARED END OF TWISTER, SHOWN AT NEW ORLEANS BY GEO. DRAPER & SONS.

a speed of 1,200 revolutions of flyer per minute; and they have been run successfully even at still higher speed.

The bearings are of a minimum size consistent with strength and durability. They have the best facilities for lubrication, and are thoroughly protected from accumulation of dirt.

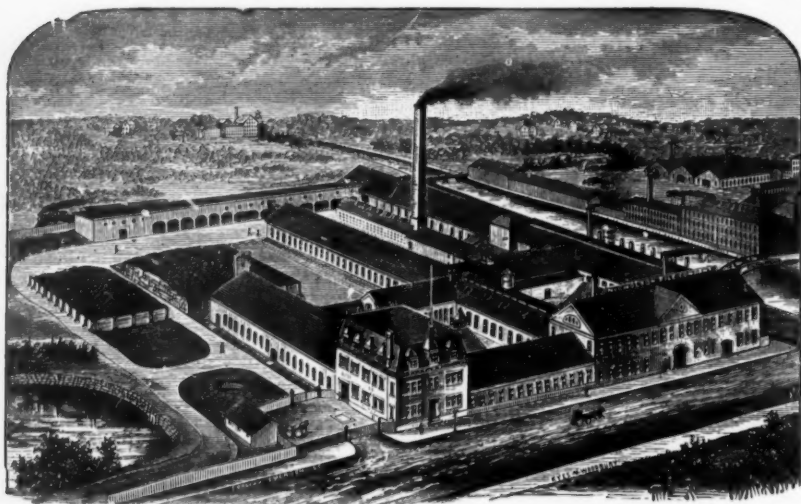
The possibility of filling a bobbin $5\frac{1}{4}$ inches in diameter with say 4-hank roving, will save a large amount of time in handling and reduce the amount of waste.

With the speeder or flyer spindle formerly used the bobbin was carried on the upper end of the spindle with the bolster or upperbearing far below the load, thus limiting the speed of the flyer on frames of $6\frac{1}{2}$ inch space to about 900 revolutions per minute. To provide a bearing above the bobbin would prevent any vibration and consequent



IMPROVED SPINDLE AND FLYER.

—219 Fulton St., New York City.—

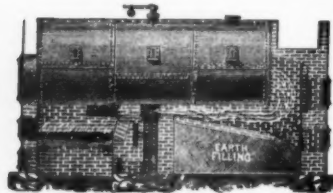


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FOR SETTING STEAM BOILERS.



Economy of Fuel, with increased capacity of Steam Power. Like the Siemens Process of Making Steel, it utilizes the waste gases with hot air on top of the fire. Will burn all kinds of waste fuel without a blast, including Slack Coal, Sawdust, Logwood Chips, &c. Send for Circulars.

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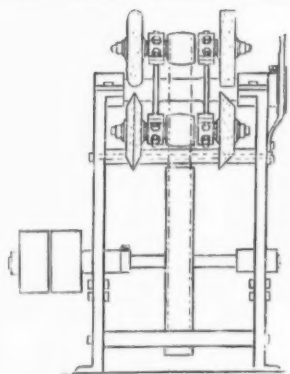
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Charleston Buggy Co., Charleston, S. C.
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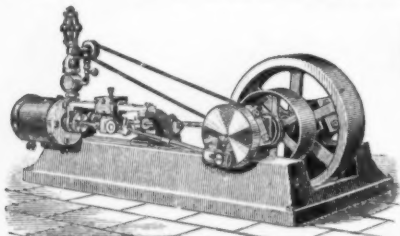
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A simple, compact, thoroughly well made,
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Specially adapted for ELECTRIC LIGHTING, &c.
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40 Horse Power VERTICAL BOILER.

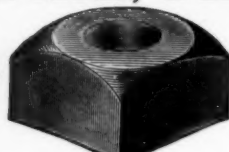
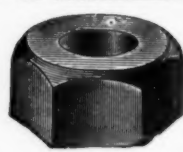
This Boiler was built to order, of very best materials and workmanship; has double-riveted seams; was used but a short time, and is much better than most of the new boilers now made. Cost to build, \$650. For sale at HALF PRICE, with fixtures, &c. Is a RARE BARGAIN. Ready for immediate delivery. Also, 8-horse HORIZONTAL ENGINE; very strong and heavy.

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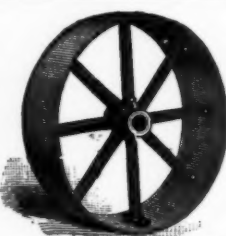
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THE LIGHTEST, STRONGEST,
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Whole pulleys from 9 inches to 120 inches diameter. Split pulleys from
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All widths of face up to 36 inches, crowning or straight, with single,
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STORES: 99 & 101 W. Second St., Cincinnati. 24 & 26 S. Canal St., Chicago.

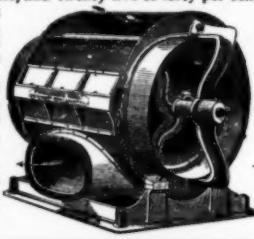
THE MACKENZIE PATENT CUPOLA AND BLOWER

Send for Circular to SMITH & SAYRE MFG. CO., Proprietors, 245 Broadway, N. Y.

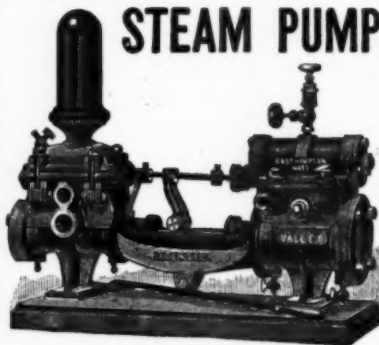


This Cupola has made a great revolution in melting Iron. It differs from all others in having a CONTINUOUS TUYERE, or in other words, the blast enters the fuel at all points. Above one ton capacity per hour, they are made oval in form. This brings the blast to the center of the furnace with the least resistance and smallest possible amount of power, and in combination with the continuous Tuyere causes complete diffusion of the air throughout the furnace, and uniform temperature, melting ten or fifteen tons an hour with the pressure of blast required to melt two or three tons in an ordinary Cupola. It also enables us to save very largely in time and fuel, the experience of our customers showing a gain of twenty-five to fifty per cent. in time, and twenty-five to forty per cent. fuel over the ordinary Cupola, and a BETTER QUALITY OF CASTING, especially in light work. This is due to the thorough diffusion of the air and more perfect combustion, extracting less carbon from the iron, making a softer and tougher casting.

We manufacture these Cupolas of any desired capacity, numbered from 1 to 20, inclusive, the numbers indicating the melting capacities in TONS PER HOUR—No. 1, one ton; No. 2, two tons; No. 3, three tons per hour, and so on up to 15, or 20 tons. We have improved the construction of these Cupolas in every way, have increased their strength and durability, and sought to make them as convenient for working and repairs as our own and the experience of our customers could suggest.



STEAM PUMPS FOR EVERY DUTY.



Best
Boiler Feed
PUMPS
in the
World.

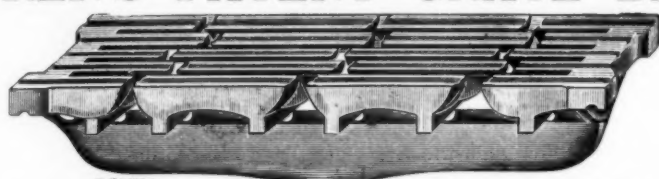


Acme.

Bucket Plunger.

VALLEY MACHINE CO.,
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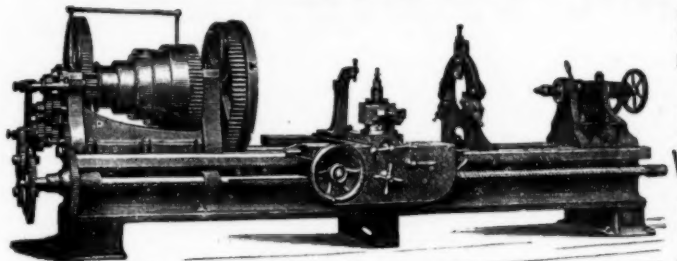
WREN'S PATENT GRATE BAR.



6. ROGERS.

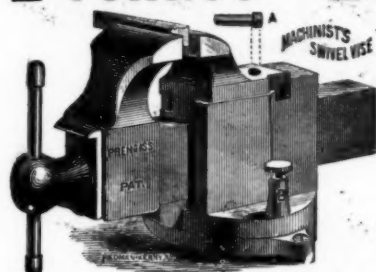
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"Peerless" (Swivel Jaw) Pipe Grip.
Every Part Interchangeable.
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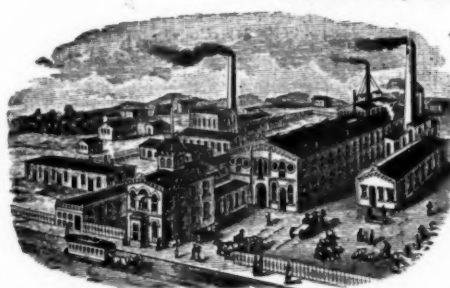
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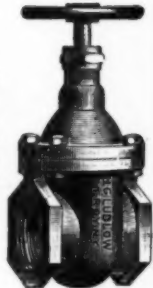
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Screws, Indicators, etc., for
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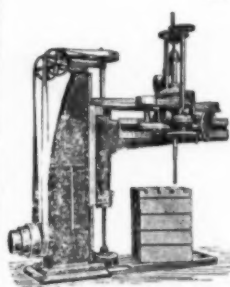
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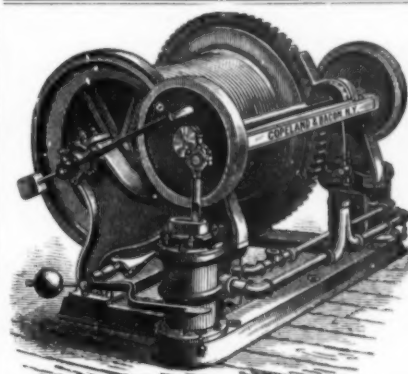
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Were the first parties to design and introduce the BALL and SOCK-ET HANGERS, ADJUSTABLE COUPLINGS, and the system of selling Shafts, Pulleys and Couplings by the piece. Will be pleased at any time to give estimates for work in place, in mills, or at our works.

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"Mining PLANTS," Concentrating
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Furnished Complete.

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REFERENCES:—Croton Magnetic Iron Mines, Brewster's, N. Y. Crown Point Iron Co., Crown Point, N. Y. Belvidere Iron Co., 52 Broadway, New York. Sea Island Chemical Co., Beaufort, S. C.

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THE BEST CHUCK IN THE MARKET.

MANUFACTURED BY

THE National Mfg. Co.

MANUFACTURERS OF

Combination, Universal
and Independent
LATHE CHUCKS.



NEW HAVEN, CONN.

THE MIDVALE STEEL CO.

TIRES and AXLES

OF EVERY DESCRIPTION.

TOOL-
AND
MACHINERY STEEL



SPRING AND GUN
STEEL.

CRUCIBLE AND OPEN HEARTH STEEL.

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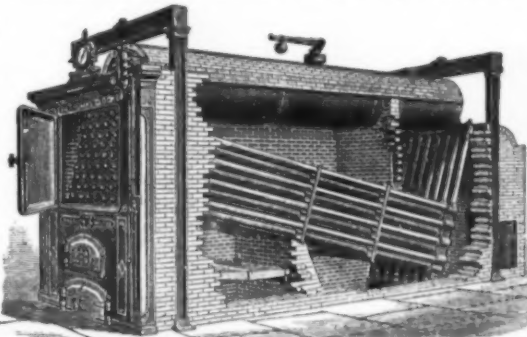
707 Market St.,
St. Louis.

64 S. Canal St.,
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561 Mission St.,
San Francisco.

San Ignacio,
No. 50, Havana,
Cuba.

107 Hope Street,
Glasgow,
Scotland.



Manufactured by the **BABCOCK & WILCOX CO., 30 Cortlandt Street, NEW YORK.**

SAML. G. B. COOK & CO., HARDWARE

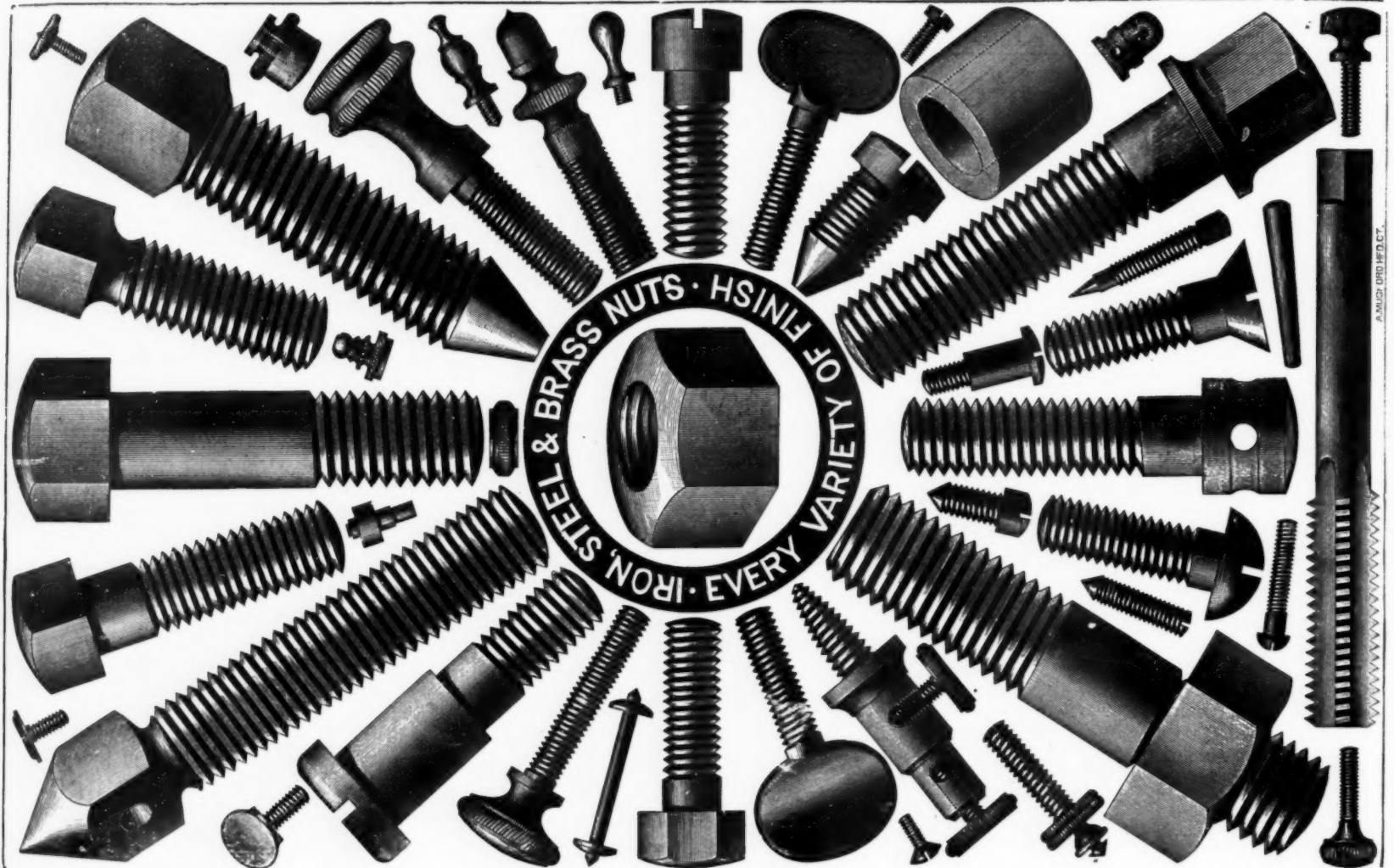
MANUFACTURERS' AGENTS
63, 65, 67 and 69 German St., BALTIMORE, MD.

AGENTS FOR

T. V. Allis Mfg. Co.—Buckthorn Wire.
American Screw Co.—Screws, Rivets, Bolts, etc.
Branford Lock Works.
Boss Molasses Gates.
Carr & Crawley.—Shelf and Carriage Hardware.
Lancaster Bolt Co.—Eagle Carriage Bolts.
Lawson & Brenner.—Hay and Manure Forks.
Meriden Britannia Co.—Rogers Bros.' Ar Plated Goods.
Northwestern Horse Nail Co.
Nicholson File Co.
Naugatuck Cutlery Co.
Globe Horse Nail Co.

Clark Hardware Co.—Spring Butts, Screen Frames, etc.
Cowles Hardware Co.—Geers, Butts, Screw Drivers, etc.
H. Chapin's Sons.—Rules, Levels, Gauges, etc.
Clark Bros. & Co.—Bolts.
Essex Horse Nails.
A. Field & Sons.—Tacks, Finishing Nails, etc.
Hubbard, Bakewell & Co.—Lippincott Axes, Saws, Shovels and Hoes.
Holroyd & Co.—Stocks and Dies.
Henry W. Kipp.—Hammers.
Klein, Logan & Co.—Picks, Mattocks, Sledges, etc.
Kimball's Patent Shovels and Spades.
Lockwood Steel Hoes.

Peck Bros. & Co.—Brass Cocks.
Payson Mfg. Co.—Building Hardware.
Payton Mfg. Co.—Enameled and Tin'd Hollow Ware.
Roy & Co.—Strap and T Hinges and Wrought Butts.
Saranac Horse Nail Co.
Scott Mfg. Co.—Peach and Apple Pearers, etc.
George M. Scott.—Blacksmith Bellows.
Wilson's Mfg. Co.—Coffee Mills, Vises and Ship Hardware.
Walker's Horse and Mule Shoes.
International and Pimlico Brand of Horse Nails, Foreign and Domestic Hardware, Cutlery, Chains, Pistols, etc.



The Hartford Machine Screw Company, Hartford, Conn.

—MANUFACTURERS OF—

Hexagon, Square, Round or Fillister Head Cap Screws, Oval Point and Cupped Point Set Screws, Collar Screws, Hanger Screws, Stud Bolts, Studs and Rolls.

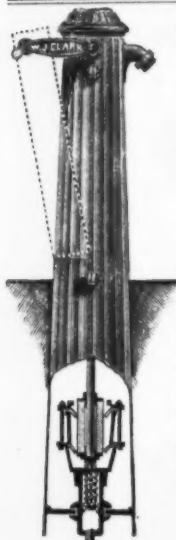
Sewing Machine Screws, Gun Screws, Clock Screws and Trimmings, Piano Screws and Trimmings, Shear, Thumb and Watch Screws, Metal Dowel Pins for Pattern Work, Taper and Straight Pins of all Sizes. Taps and Reamers to match. Telegraph, Electrical and Optical Work. All kinds of Fancy Turned Metal Work. Many of the above varieties we carry in stock.

Small Screw Tools a Specialty.

Cheap Rotary Pumps for Supplying Machine Tools with Oil, Soda Water, &c.

The attention of Model Makers, Machine Builders and Buyers of Machine Screws is called to the fact that we carry in stock a great variety of Milled Machine Screws, including all Standard Sizes, with Taps to match.

By Referring to our Stock, much Time and Expense may be saved. PRICES Reasonable. Send for Lists.



W. J. CLARK & BRO.

Manufacturers of

Hydrants.

These Hydrants are made of the best material, and are guaranteed to be entirely non-wasting and non-freezing. The works of these Hydrants can be taken out and repaired without breaking the ground. Send for circular.

38 N. Holliday Street,
BALTIMORE, MD.



Bates' Hand Elevators.
Patented April 18, 1871. Released July 25, 1876.
OVER 9,000 IN USE.

Adapted for Warehouses, Stores, Factories, Hotels, Public Institutions, and every place where merchandise, &c., is transferred from one story to another.

JAMES BATES, Patentee,
Nos. 1, 3 & 5 President Street, BALTIMORE.

1837. NOVELTY WORKS. 1883.

JAMES MURRAY & SON, Machinists and Millwrights

Engines and Boilers, Mills of all kinds, Marine Railways, &c. Improved Clay Tempering Machinery, Steam or Horse Power. Phosphate Machinery, Crushers, Rollers, Mixers, &c., &c.

40, 42 & 44 York Street,
NEAR LIGHT, BALTIMORE.

Repairing of all kinds promptly done.

REUBEN HAINES, Analytical Chemist,

738 SANSON ST., PHILADELPHIA.

Water Analysis and Assays of Ores and Minerals.

J. W. LOANE,

13 N. Gay Street, BALTIMORE.

Manufactures and sells at lowest rates

TENTS, AWNINGS, FLAGS

Canvas Horse Covers, Plain and Oiled,
Yellow and Black.

GIVE HIM A CALL. ORDERS OR ENQUIRIES
BY MAIL RECEIVE PROMPT ATTENTION.



→ HARDWARE. ←

Baltimore WHOLESALE Prices.

ANVILS.	
Eagle and Vulcan.....	10 c. dis 20%
Wright's.....	10 1/2 c.
Armstrong's Mouse Hole.....	9 1/2 c.
Trenton.....	10 1/2 c.
Wilkinson's.....	10 1/2 c.
AUGERS AND BITS.	
Conn. Valley Mfg. Co.....	dis 60%
Douglas Mfg. Co.....	from list of
Ives.....	Jan. 7, 1880
Cook's Douglass Mfg. Co.....	dis 40% to 50%
Griswold.....	dis 50% to 60%
Patent Solid Head.....	dis 25%
Russell Jennings' Auger, Dowell, Machine-	
Dowel and Hand Rail Bits.....	dis 10% to 10 1/2%
Ives' Jennings' Bits.....	dis 40% to 10 1/2%
Expansive Bits, Clark's small, 1 1/8, 2 1/8, 3 1/8	dis 25%
Expansive Bits, Clark's, 1 1/8, 2 1/8, 3 1/8	dis 25%
Expansive Bits, Clark's, 1 1/8, 2 1/8, 3 1/8	dis 25%
Hollow Augers, Douglass.....	dis 25%
Hol. Aug., Bonney's Adjust., 1/2 doz \$4.80, dis 25%	
Hol. Aug., Stearns' Adjust., 1/2 doz \$4.80, dis 25%	
Hol. Aug., Ives' Expansive, each \$4.50, dis 30%	
Hol. Aug., Universal Expansive, each \$4.50, dis 20%	
Wood's.....	dis 25%
Gimlet Bits.....	\$7.50 gross, dis 50%
Gimlet Bits, Diamond.....	dis 40%
Double Cut Gimlet Bits, Shephardson's.....	dis 40%
Double Cut Gimlet Bits, Douglass.....	dis 33 1/3%
Double Cut Gimlet Bits, Ives.....	dis 33 1/3%
Morse's Bit Stock Drill.....	dis 25%
L'Hommedieu's Ship Augers.....	dis 15%
AWL HAFES.	
Sewing Brass Ferrule.....	\$3.50 gross—dis 40% to 50%
Patent Sewing, Short.....	\$10 gross—dis 40% to 50%
Patent Sewing, Long.....	\$10 gross—dis 40% to 50%
Patent Peg, Plain Top.....	\$10 gross—dis 40% to 50%
Patent Peg, Leather Top.....	\$12 gross—dis 40% to 50%
AWLS, BRAD SETS, &c.	
Awls, Sewing, Common.....	75c. to \$1
Awls, Shouldered Peg.....	75c. to \$1
Awls, Patent Peg.....	75c. to \$1
Awls, Shouldered Brad, 1/2 gross \$2.70—dis 25% to 30%	
Awls, Handled Brad.....	\$7 gross—dis 25% to 30%
Brad Sets, Aiken's.....	dis 25%
Brad Sets, No. 42, 1/2 doz \$12.50, dis 70%	
Brad Sets, Stanley's Exc. No. 1, 1/2 doz \$12.50, dis 70%	
Brad Sets, Stanley's Exc. No. 2, 1/2 doz \$12.50, dis 70%	
Brad Sets, Stanley's Exc. No. 3, 1/2 doz \$12.50, dis 70%	
AXES.	
Collins & Co.....	\$7.25; beveled \$7.75
Cohoes Mfg. Co.....	\$7.25; beveled \$7.75
Lippincott or Mann's.....	
Single Bit, 1/2 to 5/8 and under.....	dis 25%
Single Bit, 5/8 to 1 and over.....	dis 25%
Double Bit, 1/2 to 5/8 and under.....	dis 25%
Double Bit, 5/8 to 1 and over.....	dis 25%
Double Bit, beveled.....	dis 25%
Second quality Axes.....	50 cts. less than above
AXLES.	
Sheldon & Co., iron.....	55% off
AXLE GREASE—Frazier.....	10 c.
BALANCES.	
Spring Balances.....	dis 40%
BELLS.	
Hand, Light Brass.....	dis 75%
Hand, White Metal.....	dis 60%
Hand, Silver Chime.....	dis 20% to 30%
Hand, Globe (Cone's Patent).....	dis 25% to 30%
Gong, Abbe's.....	dis 20% to 30%
Gong, Yankee.....	dis 20% to 30%
Gong, Barton's.....	dis 20% to 30%
Leon Reading.....	dis 25% to 30%
Pull, Brook's.....	dis 25% to 30%
Crank, Taylor's.....	dis 25% to 30%
Lever, Sargent's.....	dis 25% to 30%
Bloomfield.....	dis 25% to 30%
Lever, R. & E. M. Co's.....	dis 45% to 50%
Call.....	dis 25% to 30%
Cow, Common Wrought.....	dis 25% to 30%
Cow, Western, Sargent's List.....	dis 25% to 30%
Cow, Kentucky, Sargent's List.....	dis 25% to 30%
Cow, Moore's or Dodge's, Genuine Ky., new list:	
Nos. 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100	dis 40%
Cow, Texas "Star".....	dis 40%
BELLGOWS.	
Blacksmith's Common.....	dis 50%
Molder's.....	dis 25%
Hand Bellows.....	dis 25%
BLIND FASTENERS.	
Francis.....	dis 20%
Mackrell's.....	dis 20%
Van Sand's Screw Pattern.....	dis 20%
Van Sand's Old Pattern, 1 1/2, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100	dis 20%
Merriman's, new list, net	dis 20%
Zimmerman's, 9 in.....	gross \$2.00
Zimmerman's, without screws.....	\$5.00 less
BLIND STAPLES.	
Barbed, 1/2 in. and larger.....	11 c. net
Barbed, 1/2 in.....	13 c. net
BLOCKS.	
Penfield Block Co., Rope and Iron Strap'd.....	dis 40%
BOLTS.	
Cast Iron Barrel Shutter, &c.....	dis 55% to 60%
Cast Iron Chain (Sargent's list).....	dis 55% to 60%
Wrought Barrel.....	dis 55% to 60%
Wrought Square.....	dis 55% to 60%
Wrt. Shutter, all Iron, Stanley's list.....	dis 55% to 60%
Wrt. Shutter, Brass Knob, Stanley's list.....	dis 55% to 60%
Wrt. Shutter, Sargent's list.....	dis 55% to 60%
Wrought Sunk Flush, Sargent's.....	dis 55% to 60%
Wrought Sunk Flush, Stanley's.....	dis 55% to 60%
Wrought B. K. Flush, Stanley's.....	dis 55% to 60%
Carriage and Tire, Common, new list.....	dis 75%
Carriage and Tire, Philadelphia Pattern.....	dis 80%
Carriage Bolts, Clarke's.....	dis 80%
Norway.....	dis 75%
R. B. & W. Carriage (old list).....	dis 65%
Tire, American Screw Co's., Phila.....	dis 80%
Tire, "Bay State".....	dis 70% new list
Eagle Philadelphia Tire Bolt.....	dis 82 1/2%
Stove.....	dis 60%
Plow.....	dis 50% to 60%
Machine.....	dis 70%
Bolt Ends and Lag Screws.....	dis 70%
BRACKETS.	
Q. S. Backus.....	dis 50%
Barber's.....	dis 40%
Spofford's Patent.....	dis 50%
Ives' Patent Brackets.....	dis 50%
Common Ball (American).....	dis 55%
Amidon's.....	dis 50%
BORING MACHINES—WITHOUT AUGERS.	
Sweet & Clark upright, 3.60 angular.....	4.40 net
Lawrence.....	3.00 net
Hubbard.....	3.00 net
Phillips, with Augers.....	7.00 net
BRACKETS.	
Shelf, plain.....	dis 50% to 60%
Shelf, fancy.....	dis 55% to 60%

BRIGHT WIRE GOODS.	
New list.....	dis 70% to 80%
BULL RINGS.	
Union Nut Co.....	dis 55%
Sargent's.....	dis 60%
Humason, Beckley & Co's.....	dis 60% to 70%
BUTTS.	
Wrought Brass.....	dis 75%
Cast Brass, Fast Joint.....	dis 20% to 30%
Cast Brass, Loose Joint.....	dis 10% to 20%
Fast Joint, Narrow.....	dis 45% to 50%
Fast Joint, Broad.....	dis 45% to 50%
Loose Joint.....	dis 60% to 70%
Loose Joint, Japanned.....	dis 60% to 70%
Loose Joint, Jap, with Acorns.....	dis 60% to 70%
Parliament Butts.....	dis 60% to 70%
Mayer's Hinges.....	dis 60% to 70%
Loose Pin, no Acorn.....	dis 60% to 70%
Loose Pin, Acorn.....	dis 60% to 70%
Loose Pin, Acorn, Japanned.....	dis 60% to 70%
Loose Pin, Acorn, Jap'd, Plated.....	dis 60% to 70%
Tips.....	dis 60% to 70%
Wrought Iron.	
Fast Joint, Narrow.....	dis 60% to 70%
Fast Joint, Lt. Narrow.....	dis 60% to 70%
Fast Joint, Broad.....	dis 60% to 70%
Loose Joint, Broad.....	dis 60% to 70%
Table Butts, Back Flaps, &c.....	dis 60% to 70%
Inside Blind, Regular.....	dis 60% to 70%
Inside Blind, Light.....	dis 60% to 70%
Loose Pin, Wrt.....	dis 60% to 70%
Loose Pin, Light.....	dis 60% to 70%
Spring Hinges.....	
Geer's Spring and Blank Butts.....	dis 25%
Clarke Hardware Co's.....	dis 50% to 60%
American Spring Hinge Co's.....	dis 25%
Gem Spring Hinge.....	dis 25%
Blind Butts, Shepard's, No. 30 and 60.....	dis 25%
Blind Butts, Shepard's, No. 50.....	dis 25%
Blind Butts, Shepard's, No. 75.....	dis 25%
Blind Butts, Lull & Porter.....	dis 25%
Blind Butts, Huffer.....	dis 25%
Blind Butts, Clark's, Nos. 1, 2, 3, 5.....	dis 25%
Standard Lull & Porter.....	dis 25%
BOW PINS.	
Humason, Beckley & Co's.....	dis 55%
Sargent & Co's.....	\$19.70 and 21.40; dis 60%
Hotchkiss.....	dis 25%
BUTCHER'S CLAWERS.	
Humason & Beckley Mfg. Co.....	dis 25%
Bradley's.....	dis 25%
Beatty's.....	dis 25%
1 2 3 4 5 6 7 8	
\$16.50 19.00 21.50 24.00 27.00 30.00 33.50 36.50	
CAN OPENERS.	
American.....	gross \$7.50, dis 10%
New Idea.....	gross \$7.50, dis 10%
No. 4, French.....	dis 25%
No. 5, Iron Handle.....	dis 25%
Sardine Scissors.....	dis 25%
Sprague, No. 1, 2; No. 2, 2.25; No. 3, 2.50; dis 50% to 60%	
Universal.....	dis 33 1/3%
CAPS, PERCUSSION, &c.	
U. M. C., F. C. trimmed.....	50c. dis 10% to 20%
U. M. C., F. L. ground.....	70c.
U. M. C., Cen. fire ground.....	70c.
U. M. C., Double W. Proof.....	\$1.40
G. D. & S. B.....	33c. dis 10%
E. B. & I., Eley's.....	60c.
Musket, in 1-10's.....	55c.
Hicks Ground Edge in Brass Boxes.....	55c.
CARTRIDGES.	
Rim.....	dis 50% to 60%
Central Fire, pistol size.....	dis 33 1/3%
"Military.....	dis 25%
B. B. Caps, Round Balls.....	dis 25%
"Swaged Conical.....	1.90
NEW LIST ON CARTRIDGES.	
Rim-fire, 22 short.....	5 cts. long..... 6.00
" 32 ".....	10 "..... 15.50
" 38 ".....	18 "..... 18.00
" 41 ".....	15 "..... 17.50
Central Fire—32, \$11.00; 38, \$13.50; 41, 15.00; 44, \$19.00	
CARDS.	
Horse and Curry, new list, July, 1881.....	dis 10%
Cotton, new list, July, 1881.....	dis 10%
Wool, new list, July, 1881.....	dis 10%
CARPET STRETCHERS.	
Cast Steel, Polished.....	dis 30%
Cast Iron, Steel Points.....	dis 30%
Bullard's.....	dis 25%
CASTERS.	
Bed.....	dis 47 1/2% to 50%
Plate and Shallow Socket.....	dis 47 1/2% to 50%
Deep Socket.....	dis 25% to 30%
Martin's Patent (Phoenix).....	dis 25%
CATTLE LEADERS.	
Humason, Beckley & Co's.....	dis 60% to 70%
Sargent's.....	dis 60% to 70%
P. S. & W.....	dis 25% to 30%
CHAIN.	
German Halter and coil Chain.....	dis 50% to 60%
Trace, Breast and Fancy.....	dis 45% to 50%
Onedra Halter Chain (old list).....	dis 45% to 50%
Galvanized Pump Chain.....	dis 60% to 70%
Jack Chain, Iron.....	dis 60% to 70%
Jack Chain, Brass.....	dis 50% to 60%
CHALK.	
White.....	gross 60c net
Red.....	gross 85c net
Blue.....	gross \$1.00 net
White Crayons.....	gross 9c net
COTTON LINES.	
Cotton Fish Lines.....	dis 33 1/3%
Cotton Chalk Lines, 20 feet:	
Nos. 11, 13, 15, 17, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100	dis 33 1/3%
CHISELS.	
Socket Framing, Crossman.....	dis 65% to 70%
Socket Framing, P. S. & W.....	dis 65% to 70%
Socket Framing, Douglass.....	dis 65% to 70%
Socket Firmers, Crossman.....	dis 65% to 70%
Socket Firmers, Ohio Tool Co.....	dis 65% to 70%
Socket Firmers, Douglass.....	dis 65% to 70%
Socket Corner.....	dis 65% to 70%
Tanged Firmers.....	dis 40% to 45%
Tanged Firmers, Butler's.....	\$5.00 to \$5.25 to 60%
I. Merrill's Socket and Framing Chisel.....	dis 65% to 70%
CLAMPS.	
Iron, Screw, Eagle.....	dis 50%
Iron, Adjustable, Stearns.....	dis 20% to 30%
Iron, Cabinet, Sargent's.....	dis 65% to 70%
Iron, Carriage maker's, Cat & Crawley.....	dis 25%
CLIPS, AXLE.	
Norway or Best.....	dis 60%
Superior.....	dis 45% to 50%
Conestogo.....	dis 60% to 70%
Coal Hods—Griffiths.....	dis 40%
COCKS, BRASS.	
Racking, new list, July 10, 1880.....	dis 50% to 60%
Globe, new list, July 10, 1880.....	dis 50% to 60%
Plain Bibbs, new list, July 10, 1880.....	dis 50% to 60%
Ale and Beer, new list, July 10, 1880.....	dis 50% to 60%
COFFEE MILLS.	
Parker's.....	dis 45%
Wilson's.....	dis 50%
Logan & Strobridge.....	dis 45%
Enterprise Mfg. Co.....	dis 25%
COMPASSES, DIVIDERS, &c.	
Compasses.....	dis 55%
Dividers.....	dis 55%
Cook's Pencil.....	dis 10%

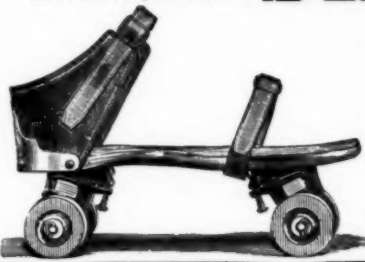
COOPERS TOOLS.	
Bradley's.....	dis 15% to 20%
Barton's.....	dis 20%
CROW BARS.	
Cast Steel.....	dis 60%
Iron, Steel Points.....	dis 40%
CURLING IRONS, &c.	
1/2, 3/4, 1 in., \$1.80, 2.00, 2.50.....	dis 10%
Curling Tongs.....	dis 3.65, dis 10%
Pinching Irons.....	dis 7.50, dis 20%
CURRY COMBS.	
Fitch's new list.....	dis 50%
Hotchkiss, Novelty, new list, July, 1880.....	dis 25%
Hotchkiss, Excelsior Superior Champion.....	dis 25%
Lawrence, "Perfect".....	dis 25%
Rubber.....	dis 25%
Sweet & Clarke.....	dis 25%
Lusters.....	dis 25%
CURTAIN PINS.	
Silvered Glass.....	dis 25%
White Enamel.....	dis 25%
CUTLERY.	
Association (Table).....	dis 25%
Naugatuck Cutlery Co.....	dis 25%
Excelsior Knife Co.....	dis 25%
Wilson's Butcher and Shoe Knives.....	dis 30%
Ames' Shoe Knives.....	dis 15%
Wm. Rogers Mfg. Co., Plated Cutlery.....	dis 25%
DOG COLLARS.	
Embossed Gilt.....	dis 20%
Leather.....	dis 25%
Brass.....	dis 25%
DOOR SPRINGS.	
Torrey's Rod, regular size, 1/2 doz., \$3.....	dis 40% to 50%
Gem (Coil).....	
No. 1, Large Japanned.....	dis 40%
No. 2, Medium Japanned.....	dis 40%
No. 3, Small Japanned.....	dis 40%
No. 4, ("Shoe Fly") Screen door size, 1.50	
No. 5, Screen door size.....	dis 50%
No. 6, Medium.....	dis 50%
No. 7, Large.....	dis 50%
Standard—10 doz \$1.25; 9 doz \$1.75.....	dis 50% to 60%
8 doz 2.50; 6 doz \$3.50.....	dis 50% to 60%
Hercules.....	dis 50% to 60%
DRAWING KNIVES.	
Ohio Tool Co.....	dis 60% to 70%
Crossman's No. 1.....	dis 65% to 70%
Nobles Mfg. Co.....	dis 15%
Bradley's.....	dis 35%
Adjustable Handle.....	dis 20%
P. S. & W.....	dis 70% to 80%
Douglas.....	dis 70% to 80%
DRILLS AND DRILL STOCKS.	
Blacksmith's Self-Feeding.....	each \$2.50, dis 10%
Breast, P. S. & W.....	dis 20% to 30%
Breast, Wilson's.....	dis 20%
Breast, Millers Falls.....	each \$3.00, dis 25%
Breast, Bartholomew's.....	each \$2.50, dis 25%
Wilson's Drill Stocks.....	dis 10%
Automatic Boring Tools.....	each \$2.25, dis 20%
EGG BEATERS.	
Dover.....	dis 25%
Medallion.....	gross \$10.00
Victoria.....	gross \$10.00
EMERY AND EMERY PAPER.	
Regular numbers.....	dis 60%
Flour and F. F.....	dis 40%
B. & A. Emery Paper.....	dis 30% to 40%
ENAMELED AND TINNED WARE.	
Kettles.....	dis 60%
Sauce Pans.....	dis 40%
Tinned Sauce Pans.....	dis 40%
Escutcheon Pins—Brass.....	dis 5

LAWN MOWERS.	
Ruckeye, Easy and Excelsior, new list.....	dis 30
LINNS.	
Linen Fish.....	dis 25 & 10
Wire Clothes, Galvanized, 100 feet.....	dis 30
LOCKS AND LATCHES.	
Cabinet, Eagle.....	dis 40
Cabinet, Gaylord.....	dis 40
Cabinet, Bridgeport.....	dis 40
Cabinet, P. & F. Corbin.....	dis 40
Trunk, new list, Jan 1, 1881.....	dis 15 & 2
Yale Lock Co., Flat Key.....	dis 40
Plate.....	dis 33 & 2
DOOR LOCKS, ETC.	
Bradford.....	dis 40
Norwalk.....	dis 40
Norwich.....	dis 40
P. & F. Corbin.....	dis 40
Russell & Erwin.....	dis 40
Mallory, Wheeler & Co.....	dis 40
Padlocks—Russell & Erwin.....	dis 45
Mallory, Wheeler & Co.....	dis 45
Norwich Lock Manf. Co.....	dis 45
Wm. Wilcox & Co.....	dis 45
Wm. Wilcox & Co's Plate Locks.....	dis 45
Yale Lock Manf. Co's "Standard".....	dis 45
Romer's.....	dis 45
Conestoga.....	dis 45
Scandinavian, "Norwich".....	dis 50 & 10
MALLETS.	
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Universal, XX, No. 2 1/2.....	36.00
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Universal, XX, No. 12.....	each 20.25
Universal, XX, No. 18.....	each 22.75
Universal, XX, No. 22.....	each 30.25
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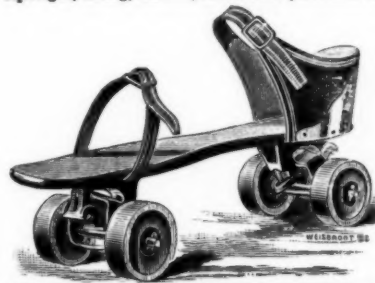
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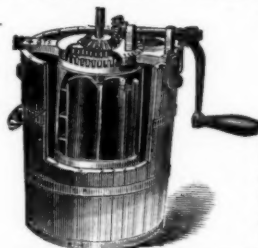
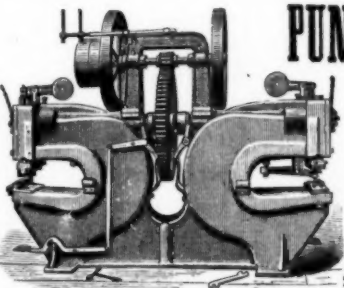
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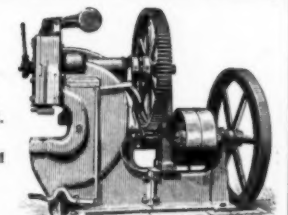
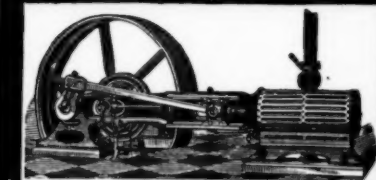
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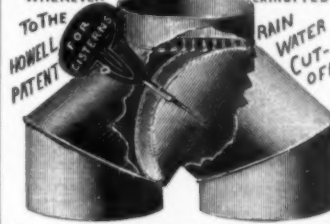
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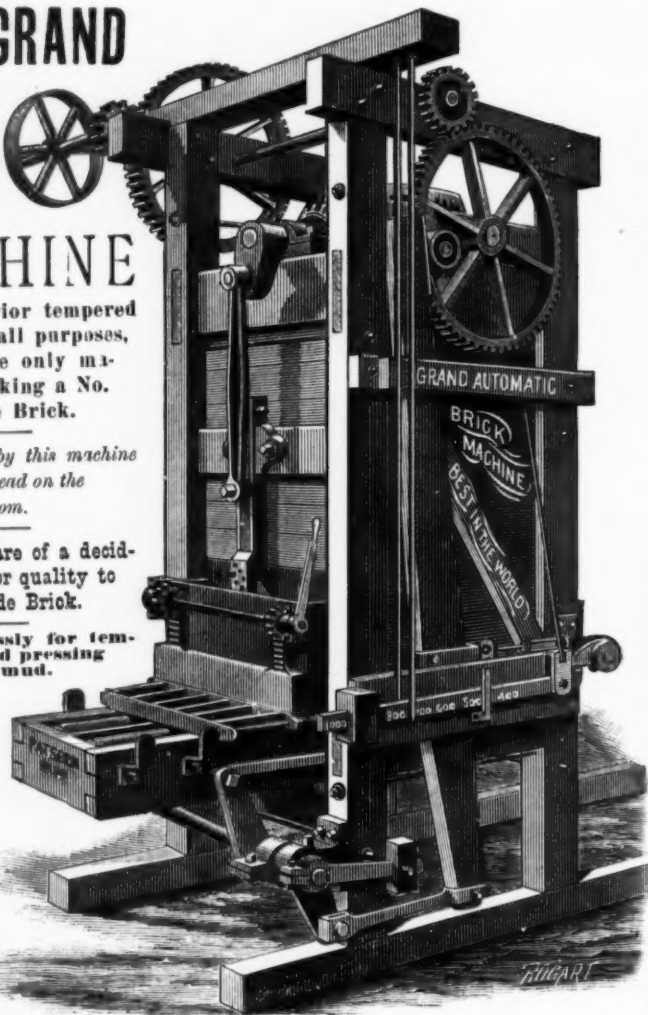
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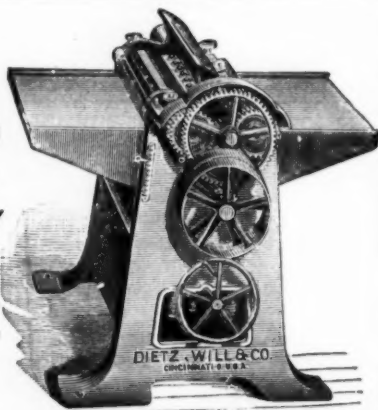
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MANUFACTURERS OF THE

Best Iron Paint in the Market,

Both Dry and Ready-Mixed, for the Protection of Iron, Tin or Shingle Roofs, Out-buildings,
Railroad Cars, Iron or Wooden Bridges, Gas Receivers, and machinery of all kinds, Iron Stacks
and all property exposed to the weather. Our dry is furnished in barrel, ton or car-load lots,
and our ready-mixed in one and two-gallon cans, half-barrels and barrels. Merchants
buying 50 gallons or over in cans can have the special label put on if desired. WE GUAR-
antee our dry and ready-mixed paint equal to any in the market.
For prices, address

CHATTANOOGA PAINT CO., Chattanooga, Tenn.

LAWRENCE & MENDENHALL,

Manufacturers' Agent,

Office, No. 55 West Fourth Street,
CINCINNATI, O.

Hardware & Building Specialties

INTRODUCED AND SOLD.

—AGENT FOR—

Huginin Window Balance,
Hemacite Knobs,
North's Blind Awning Fixtures,
Wilber's Barn Door Hangers,
Raymond's Lead Weights,
Dudley Blind & Shutter Worker.

Important to Southerners.

Persons arriving in New York via Cort-
landt Street Ferry, by taking the 6th Ave-
nue Elevated Train, corner Church and
Cortlandt streets, can reach the Grand Union
Hotel in 42d street, opposite Grand Central
Depot, in twenty minutes, and save \$3 car-
riage hire. If en route to Saratoga or other
summer resorts via Grand Central Depot, all
baggage will be transferred from hotel to this
depot free. 600 elegantly furnished rooms
\$1 and upwards per day. Restaurant the
best and cheapest in the city. Families can
live better for less money at this hotel than
at any other first-class hotel in the city. †

PAINTS, OILS, &c.

PAINTS.

Black Lamp, coach painters.....	7 lb 20c
Black Lamp, ordinary.....	7 lb 40c
Black Ivory Drop, fair.....	12@15c
Black Ivory Drop, best.....	20c
Black Paint, in oil.....	kegs, 6c; assorted cans, 9c
Blue Prussian, fair to best.....	35@40c
Blue Prussian, fair to best, in oil.....	35@40c
Blue Chinese, dry.....	70c
Blue Ultramarine.....	15@25c
Brown, Spanish.....	10c
Brown, Van Dyke.....	5@15c
Green, chrome.....	8@15c
Green, chrome, in oil.....	9@12@15c
Green, Paris.....	good, 20c; best, 25c
Green, Paris, in oil.....	good, 20c; best, 25c
Iron Paint, bright red.....	7 lb 2 1/2c
Iron Paint, brown.....	7 lb 1 1/2c
Iron Paint, purple.....	7 lb 3c
Iron Paint, ground in oil, bright red.....	7 lb 5 1/2c
Iron Paint, ground in oil, red.....	7 lb 5c
Iron Paint, ground in oil, brown.....	7 lb 4 1/2c
Iron Paint, ground in oil, purple.....	7 lb 6c
Linseed Oil, raw.....	53c
Single Boiled.....	55c
Double ".....	61c
Mineral Paints.....	2@4c
Orange Mineral.....	10c
Red Lead, American.....	6 1/2@7c
Red Venetian, (English) dry.....	\$1.50 to \$1.75
Red Venetian, in oil.....	assorted cans, 9c; kegs, 6c
Red Indian, dry.....	8@12c
Rose Pink.....	10@13c
Sienna, American, raw.....	4c
Sienna, burnt.....	4c
Sienna, burnt, in oil.....	8@15c
Sienna, raw.....	8@15c
Umber, burnt.....	4@8c
Umber, burnt, in oil.....	8@15c
Umber, raw.....	3 1/2@7 1/2c
Umber, raw, in oil.....	8@15c
Vermilion, Chinese.....	60@65c
Vermilion, English.....	60@65c
Vermilion, American, common.....	15c
White Lead, American, pure dry.....	6@6 1/2c
White Lead, American, pure in oil.....	6@6 1/2c
White, Paris, English, prime.....	in bbls. 1 1/2@2c
Yellow Ochre, French.....	\$1.75
Yellow Ochre, French, in oil.....	ass't'd cans, 9c; kegs, 6c
Yellow Ochre, American.....	in bbls. 1 1/2@1 3/4c
Yellow Chrome.....	8@18c
Yellow Chrome, in oil.....	9@12@18c
Zinc White, American, No. 1, dry.....	5@6c
Zinc White, American, No. 1, in oil.....	7@9c
Zinc White, French (Paris) dry.....	9@12c
Zinc White, French in oil.....	10@14c

OILS.

Bleached W. Sperm oil.....	1 01@1 08
Nat. ".....	1 00@1 03
B. W. Elephant oil.....	75@
" Whale oil.....	70@
Prime Lard oil.....	60@
Extra No. 1 Lard oil.....	60@
Lubricating oils.....	12@
Miners' oil.....	45@
W. Pressed Fish oil.....	38@
Neatsfoot oil.....	65@
Steam-refined Cylinder oil.....	40@
Best Filtered ".....	65@
Signal oil.....	55@
Paraffine.....	19@

SUNDRIES.

Benzine.....	7 gal., 8@10c
Turpentine.....	7 gal., 33 1/2 c
Chalk.....	1/4c
Chalk, No. 1.....	1/4c
Dryer Patent Am'n.....	ass't'd cans, 8c; keg, 7c
Frostings.....	40c
Glue, white.....	18@36c
Glue, sheet.....	14@20c
Glue, ordinary.....	9@12
Glaziers' Points, zinc.....	8c
Gum, Copal.....	36c
Gum, Damar.....	25c

Carriage and Wagon Material

AXLES.

Half Patent, solid collar.....	dis 60 1/2
Common.....	rate 4
Concord.....	8 1/2

BODY LOOP ENDS.

Plain, set.....	100
Bolts, Eagle.....	75

CLIPS.

Superior Axle.....	dis 60 1/2
Norway.....	20 1/2
Saddle.....	doz set \$1 50

FINISHED CLIP KING BOLTS.

Flanged, 7/8 doz.....	Nos. 1 & 2 3
	\$3 00 3 75

DASHES.

Leather, new list.....	dis 5 1/2
------------------------	-----------

ENAMELED CLOTHS.

Muslin, 7/8 yard, 5-4.....	18
Drill, " 50 in.....	24
Duck, " 50 in.....	29
Tan Back, " 5-4.....	32

FELLOW PLATES.

Per lb.....	8
-------------	---

FIFTH WHEELS.

Derby, 3/4, 7/8 doz.....	\$7 50
" 3/4, " ".....	\$8 50

RUBBER DUCK AND DRILL—35 % off list.

Seat, 1 1/2 x 2 1/2, pair.....	90
Buggy, 1 1/2 in. and larger.....	8
" 1 1/4 to 1 1/2 in.....	9
Oil-tempered springs 2c. advance from above.	

SHAFT COUPLINGS.

Discount.....	50 %
---------------	------

MALLEABLE CASTINGS.

Rate.....	8
Core.....	12

POLE EYES AND COUPLINGS.

Discount.....	40 %
---------------	------

H. B. LEATHER.

No. 1 Top, 7/8 ft.....	28
" 2 " ".....	23
" 1 Dash, " ".....	12
" 2 " ".....	10 @10 1/4
Fancy Morocco, 7/8 ft.....	26
Bow, 7/8 ft.....	20 @23
Collar, ".....	24
Harness, 7/8 lb.....	40

STEEPLES.

Per doz, pair.....	\$2 25@7 50
Spokes, No. 1, 1 to 1 1/2.....	\$2 25 set.
" X, 1 to 1 1/2.....	2 50
" XX, 1 to 1 1/2.....	3 50
Wheels, Sarven Patent.....	\$6 50 to 14 00

HICKORY FELLOWS.

X.....	1 1/4 1 1/2 1 3/4 1 1/2
	1 25 1 25 1 35 1 60 2 00 7 set.
XX.....	3 00 3 25 3 50 3 75 4 25

HICKORY SPOKES.

No. 1.....	1 1/4 1 1/2 1 3/4 1 1/2
	2 25 2 25 2 25 2 50 2 75 7 set.
XX.....	3 50 3 50 3 50 3 50 3 75

HUBS.

No. 1.....	5x7 6x8 7x9 8x10
	90 1 00 1 35 1 80 7 set.
XX.....	5 in. and smaller, 5 1/2
	2 25 2 50 7 set.

FINISHED SHAFTS AND BARS.

X.....	4 50
XX.....	7 00 doz. pairs

IRON WORKING MACHINERY.

NEW.

1 Engine Lathe, each 10, 11, 12, 13, 14, 15, 16, 18, 20, 22, 24, 26, 28, 30, 36, 42 and 48 in. swing; length of bed to suit.	
1 Fox Turret Lathe, each 13, 15 and 16 in. swing; 5 ft. bed.	
1 Sq. Arbor Fox Lathe, 15 in. x 6 ft.	
1 each, Hand Lathes, 10, 12, 14, 15 and 18 in. swing.	
1 Iron Planer, each to plane 18, 20, 22, 24, 26, 30 and 36 in. wide and high; length of table to suit.	
1 each 16, 20, 22, 23, 25, 28, 30, 34, 38 and 42 in. swing. Upright Drills.	
1 each, 2, 3, 4 and 6 Spindle Gang Drills.	
1 each 8, 10, 12, 15, 20 and 28 in. Shapers.	
1 No. 2 Milling Machine. Lincoln Pattern.	
1 Grant & Bogert Milling Machine.	
1 each, Nos. 2, 4 and 5 Screw Machines.	
1 each, 3 and 7 Spindle Nut Tapper.	
1 Boring and Turning Mill, each 50 and 72 in. swing.	
1 Cutter Grinder.	
1 12 in. and 24 in. Cylinder Horizontal Engine.	
1 each 4, 5 and 6 ft. Arm Universal Radial Drills.	
1 Pat. Makers Lathe, 25 in. x 12 ft. between centres.	
1 Grant's New Universal Miller.	
1 Pr. Bending Rolls for 1/2 in. x 60 in. plates.	

SECOND-HAND.

1 Engine Lathe, each 18 in. x 8 ft. Good as new.	
1 Iron Planer, 24 x 24 x 6 ft.	
1 " " 20 x 20 x 4 ft. At order.	
1 " " 24 x 24 x 5 ft. " " "	
1 " " 30 x 30 x 7 ft. " " "	
1 " " 32 x 30 x 9 ft. " " "	
1 40 lb. Bradley Hammer.	
1 Lincoln Pattern No. 2 Miller.	
1 36 in. Gear Cutter.	
1 Horizontal Boring Machine; takes 6 ft. between centres; 36 in. swing.	

All kinds Machinists' Tools and Supplies.

New York Agency of the Tanite Co.

Grant & Bogert Machine Tool Works.

AND FOR THE

"New Polished" Shafting.

H. PRENTISS & CO.

42 Dey Street, New York.

If you want to reach

the trade of Texas and Mexico, or to have early and
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TRADE NOTES.

Terra Cotta.

The meaning of the above words is "burnt" or "baked earth." This has become so modernized, though, as to now signify unglazed works in clay, and is a material from which may be made a superior class of molded brick or any handsome and substantial architectural ornamentation.

Terra cotta has decided advantages over all other forms of building material, in that it has greater strength, more durability, is absolutely fire-proof, and is cheaper than stone or metal. It is easily molded into any form, and is lighter than stone. No known building material can compete with it for lasting qualities and elegance of finish. It can be made in a variety of pleasing colors, and when used with other brick, stone or iron, displays a very pretty contrast and presents a handsome appearance.

Among the prominent buildings supplied with terra cotta are the following: Grand Central Passenger Station, Cincinnati, O.; St. Louis Exposition and Music Hall; Chamber of Commerce, St. Paul; Wesley Church and Chapel, Columbus, O.; Standard Oil Co., Pittsburgh; Singer Sewing Machine Co., Pittsburgh; insane hospitals in Richmond and in Logansport, Ind.—the former having 18 buildings, the latter 10—all finished with terra cotta; bank, private and public buildings in Rochester and St. Paul, Minn., Fargo, Dak., Kansas City and St. Louis, Mo., Indianapolis, Princeton and Crawfordsville, Ind., and many other places. These were all manufactured and furnished by the Indianapolis Terra Cotta Company, whose advertisement may be found upon the first page of cover of this paper.

Visitors to the Exposition in New Orleans may see some excellent and beautiful specimens of this company's work by stepping into the Main and Government Buildings. In the former the company has a space 12x24 feet, located at I. I. K.—3. In the Government Building, one of the main features of the Indiana exhibit is this company's display, and may be described as follows: First is a circular panel 30 inches in diameter, on which rest two shields partly obscured by smaller circular panels, on one of which rests the seal of the State of Louisiana, and upon the other that of Indiana. At the base are the leading products of the afore-named States. Rice and corn are entwined on the outer surface of the large panel, enclosed by a Liberty wreath. Above the panels on which the State seals rest are two figures—one of an Indian, the other a Negro. The latter holds a streamer, upon which appears the name of the Indianapolis Terra Cotta Co. Grouped around the central figure are other exhibits equally artistic, composed of special model panels, pilasters, caps, corbels, etc., etc. Two other features are two very handsome oval heads—one a female head representing the Mississippi river; the other a male, the Missouri.

Another exhibit is in the State and Educational Headquarters, Government Building, and is well worth visiting.

By sending to the company at Indianapolis you will receive, by return of mail, a very handsome catalogue. Don't fail to write for it, and refer to the MANUFACTURERS' RECORD.

PERSONS going to Knoxville, Tenn., should stop at the Hattie House. This is a first-class hotel, and is the only one in the business centre of the city. It is nearly new, and contains about 100 rooms, some of them large rooms especially intended for commercial travelers. A portion of the lower floor, which is 200 by 50 feet, has recently been fitted up as the office, and the remainder divided up into bar, barber shop, billiard room and ten-pin alley, furnishing a place of resort that Knoxville has long felt the need of. The hotel is kept by Mr. John C. Flanders, who is an ideal hotel man.

Lord's Boiler Compound.

One of the troubles to which steam users are constantly subjected, is the accumulation of scale in boilers, and efforts are constantly being made either to prevent the formation of scales or else to remove it after it has been formed. While the scale will ruin the boiler its removal may also do the same thing. Compounds of various kinds are used to remove the scale, but, unfortunately, they sometimes remove not only the boiler itself, but also the workmen around it. This is done by the use of some compounds, which, while destroying the scale, weakens the boiler and cause its destruction either by explosion or wearing out. A boiler compound which has been thoroughly tested for years is Lord's manufacture, 316 Union street, Philadelphia, Pa. According to the tests of the ablest chemists this compound will not injure the boiler, but it will remove the scale. It is widely used and has been for a number of years, and with the most satisfactory results. Steam users can obtain full particulars regarding it from Geo. W. Lord, 316 Union street, Philadelphia, Pa.

Slide Valve Engines.

Persons desiring first-class slide valve engines, made by responsible and reliable builders, and at prices consistent with good workmanship, can have their desires fulfilled by addressing Messrs. Chandler & Taylor, Indianapolis, Ind.

This firm is an old and well-known one; their word is as good as their bond, and therefore their statements as to merits and quality of their engines and saw mills can be implicitly relied upon and accepted.

Their manufactory is known as the Phoenix Machine Works, Indianapolis.

They also make side-cutting Mulay saw-mills, which are adapted to general purposes and for neighborhood work.

Write them for catalogues and prices.

A NEW silver and nickel-plating establishment has been organized at Richmond, Indiana; is in operation and turning out most excellent work. Warren Shumard, of Shumard Sash Balance fame, is president of the new company.

ARCHITECTS and builders should, in making their estimates, bear in mind the iron roofing and siding of the Cincinnati Corrugating Company, which is so fully represented and described in their new catalogue just out of press. Rink managers and builders will find it especially interesting. It will be sent free. Address Cincinnati Corrugating Co., Cincinnati, Ohio.

BALTIMORE.

MR. JAMES BATES, the well-known builder of elevators, has just completed two steam screw-power elevators for Messrs. W. Duke, Sons & Co.'s tobacco factory at Durham, N. C.; also one for the Sibley Mfg. Co., Sibley, Ga., and has filled several orders for Norfolk, Raleigh, Savannah and Knoxville. He expects to enjoy a very busy spring, judging from the large orders constantly received.

MESSRS. JAS. MURRAY & SON report their business improving, having a number of orders on hand sufficient to keep them going for some time. They also have a liberal supply of repair work.

MESSRS. W. J. CLARK & BRO., manufacturers of W. J. Clark's Patent Improved Hydrant, No. 38 N. Holliday street, report the success of their hydrant beyond expectations. Orders have come in from the city, and also outside orders, which have kept them busy for some time. They have some very flattering testimonials from their customers, who are well pleased with these hydrants. Notwithstanding the severe winter, none of them have had a hydrant to freeze.

MESSRS. JOHN T. COLEMAN & SONS, Holliday and Pleasant streets, report their business improving, having on hand a number of orders for new and repair work. The prospects for a good spring trade are very good.

Business Chances.

For the purpose of making the MANUFACTURERS' RECORD a still more valuable medium of communication between its readers North and South, we will publish, FREE OF CHARGE, short advertisements, not exceeding 40 words, from those in the South who have mills, factories, manufacturing sites or water-power for sale, capital wanted for industrial enterprises, &c., &c.; while readers in other sections who desire to engage in manufactures at the South are also invited to use these columns, without cost, either in seeking information regarding the advantages and special claims of different localities, or for asking about good openings for men and money. This department is also free for Southern manufacturers who wish to advertise for mill managers, superintendents, engineers, &c.

In corresponding with any of these advertisers please mention the Baltimore Manufacturers' Record.

THE OWNERS of a cotton mill in the South want an experienced man to take an interest in the mill, and take charge of same as manager. The officers and other stockholders have had no experience in running cotton factories, and besides, their time is so fully taken up with other business, that they can not give personal attention to management of the finances or to the sale of the product. The mill is splendidly located, and has numerous advantages for manufacturing at lowest cost. Address A. C. M., care MANUFACTURERS' RECORD.

THE ADVERTISER desires to locate in some Southern town and engage in the manufacture and sale of bottled soda and mineral waters. Would like to be furnished with the names of places needing such an industry, with some information as to their attractions and advantages. Address SODA, care MANUFACTURERS' RECORD.

WANTED.—Partner with \$2,000 or more to engage in the manufacture of furniture. Factory buildings complete; trade established; lumber convenient; shipping point good; railroad runs through the yard; water also. The advertiser will go in as a partner, furnishing \$800 towards capital, or will work on salary in former capacity (superintendent) or as a hand. Address J. W. G., care MANUFACTURERS' RECORD.

WANTED.—A partner with capital to join me in changing a flour mill (2 pair burrs, machinery in good order, overshot wheel 24 1/2 feet), to make "New Process" flour; or I will sell the mill upon reasonable terms. Location, at the junction of the New River Railroad with the Norfolk & Western Railroad, in a fine grain, grazing and mineral section. Address G. C. Wharton, New River Depot, Pulaski Co., Va.

B. F. WILLARD, Maryville, Tenn., desires to purchase a second hand 40 horse-power engine and boiler.

PARTY who will furnish \$5,000 to build side track and equip coal mine can have half interest in one of the best and most accessible tracts of coal lands in the Warrior fields. Two hundred acres on through line of railroad. 3 feet vein can be worked from drift. Natural drainage. No machinery needed. Mine already opened. Coal tested equal to Pittsburgh for steam or gas. Address Box 100, Warrior, Ala.

A GOOD LOCATION for light manufacturing purposes, such as brooms, buckets, chairs, &c., on the N. & W. R. R., Southwest Virginia. One acre of land with water, office, 5 ton wagon scales, and private siding to hold 10 or 12 cars. Will sell at a moderate price or put it in stock. Address Dixie, care of MANUFACTURERS' RECORD.

AN ACTIVE, reliable engineer wants to engage in some business, where his time and \$500 would be suitably remunerated. Address G. W., care MANUFACTURERS' RECORD.

WATER POWER.—We have on our place in Marion, Va., one of the finest water powers and situation for factory in Southwest Virginia, immediately on the N. & W. Road, within half mile of the depot, which we will sell cheap to any one who will put a factory on it or will put it in as stock with responsible parties. Look & Lincoln.

COTTON MANUFACTURING.—I desire to join parties in manufacturing any or all of following textiles: Turkish and other towels, quilts, ties, table covers, mosquito netting, etc. A splendid opportunity for introducing a substantial industry into the South. Communications requested. John Campbell Brooks, Paterson, New Jersey.

AN ENGINEER and draughtsman wants a position, where his experience in managing men, designing and constructing machinery of various kinds, can be given a trial with prospects of investing some means. Engineer, 347 Lafayette ave., Brooklyn, N. Y.

CAPITAL FURNISHED and contracts taken for building ice factories and cold storage houses in any Southern State. Parties wishing to engage in this business address The National Investment and Development Co., 83 Cedar Street, New York.

WANTED.—A practical bucket maker with \$500 to \$1,000, to invest so as to have some interest in the business, to turn out buckets, etc., by contract. Address H. N. S., Jr., Knoxville, Tennessee. P. O. Box 130.

WANTED TO PURCHASE.—One or more latest improved machines for finishing cotton fish line. Also machine for hanking and coiling same. Address A. P., care MANUFACTURERS' RECORD, Baltimore, Md.

I WOULD LIKE to get estimates on steam-wheel boat machinery complete, from good manufacturers. Size of engines from 6 to 10 inch cylinder. C. N. Ledwith, Apalachicola, Florida.

WANTED.—Woolen mill machinery and flouring mill machinery. Want to exchange valuable residence property for them. One set card and jack and custom card, &c., and mill machinery to grind for custom 300 bushels wheat and same of corn in 10 hours, with cleaning, smutting, purifying and batting attachments. All must be latest improved, and new or good as new, and reasonable price. Address M, Box 10, Pulaski, Tenn.

WANTED.—A partner with \$5,000 or \$6,000 capital to join me in a custom mill to card wool and grind wheat, corn and feed, and run a country barter store. My capital will consist in property adapted to such uses, and will be put in at a low valuation. Address L. M., Box 10, Pulaski, Tenn.

MAN WANTED to take a half interest in merchant mill and saw mill. A rare chance for a man with a small capital. Apply to S. Worthen, Bakersville, Mitchell county, N. C.

A FIRST CLASS machinist and engineer of many years experience in erecting and running all kinds of machinery, is open for engagement to go South. Address Engineer, care of MANUFACTURERS' RECORD, Baltimore, Md.

FOR SALE CHEAP.—The entire property of the Danner Land & Lumber Co., consisting of, in part, 3 steam saw mills and about 30,000 acres of pine timbered land. Will sell on easy terms, and will take pay in lumber, if desired, and parties are responsible. For particulars, address J. C. Strong, assignee, Mobile, Ala.

FORTY-THOUSAND dollar cotton mill for sale in South Carolina, for division, containing 500 acres of land, merchant grist and saw mills and gin,—all in good running order. For health and natural advantages not excelled in the South. Address W. L. Morgan, Bros. & Co., Crawfordville, Spartanburg Co., S. C.

FOR TEN THOUSAND DOLLARS will sell a fine water power, with two hundred acres of land in Piedmont B. L., Spartanburg Co., S. C. Health and water unsurpassed in the State. For manufacturing purposes will employ two hundred thousand capital; 150 acres in cultivation. Address S. A. Green, Crawfordville, P. O., Spartanburg Co., S. C.

FOR SALE.—1,200 acres of land, fine water-power, on Horse Creek, near Bath Paper Mill, on C. C. A. R. R., 5 miles from Augusta, Ga. Saw mill, grist mill and gin; crystal water never fails in dry time; well improved;—all in good order. (Fine place for paper mill.) For particulars, address W. H. Dowdy, Bath, S. C.

WANTED.—Purchaser for 2,500 acres woodlands, including thousands of the finest fancy timbers to be had in the United States, such as walnut, white oak, ash, maple, cypress, pine, hickory, &c. Unsurpassed facilities for shipping lumber to market. Address Mrs. A. C. Watts, Laurens C. H., S. C.

WANTED.—Situation as superintendent of cotton factory; now employed in the South; satisfactory reasons for leaving present place; good references. Address N. C., care MANUFACTURERS' RECORD.

WANTED TO PURCHASE.—A set of 40-inch wool cards, a 240-spindle self-operator and picker.—Must be second hand, good as new and very cheap. Address L. M., Box 10, Pulaski, Tenn.

WOOLEN MANUFACTURERS.—The undersigned desires to take the entire management of some good woolen mill in the Southern States, (has had 30 year's practical experience,) or would take charge of the finishing department alone. Address P. M. Smith, Auburn, Mass.

WANTED.—A water-power in some Southern State, and men with some capital, to engage with a man of 15 years' experience and some capital in manufacture of sewing machines. A village preferred. Address W. S., care MANUFACTURERS' RECORD, Baltimore, Md.

WANTED.—\$2,000 or \$3,000 to rebuild after the losses by our fire last fall. Abundant security on real estate. Good interest and semi-annual payments if desired. Apply to A. H. V. D., Box 89, Liberty, Virginia.

THE ADVERTISER desires to furnish a part of the capital, and join others in starting an oil mill and an ice factory in some good locality in the South.—Address Columbus, care MANUFACTURERS' RECORD.

FOR SALE LOW.—One-third of the capital stock of \$20,000 in the Tuscaloosa Foundry and Manufacturing Co., who carry on a planing mill, boiler and machine shop and cotton ginning business in one of the best localities in the South. Company free from debt. Reasons for selling: owner must devote his attention to other interests at a distance. A position worth \$1,200 a year awaiting purchaser who understands the planing mill business. Correspondence solicited. H. S. Brodhead, Florence Hotel, Birmingham, Ala.

WANTED TO PURCHASE.—One set good second hand 40 inch woolen cards, one 240 or 280 spindle jack, one picker about 50 ft. x 3 in. shafting, with pulleys &c., 8 or 10 M 7-inch filling bobbins. Any one having the above will do well to address J. B. T., Olympia, Smyth county, Virginia.

BERNHARD DIETZ, Manufacturer of Printers' Rollers, and Roller Composition. Factory, cor. Light and Mercer streets, Baltimore. Prices: Composition, (bulk) 30 cents per lb.; for Casting, also, 30 cents per lb. Orders by Mail promptly attended to.

Send to FARMVILLE MAN'G CO.

FOR PRICE LIST OF

PLOW HANDLES,
Beams and Rounds,
FARMVILLE, - VA

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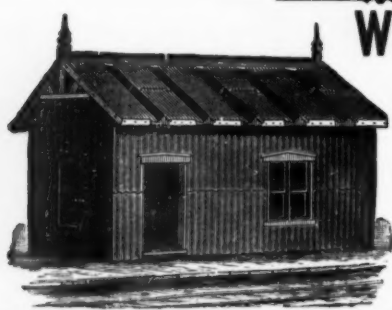
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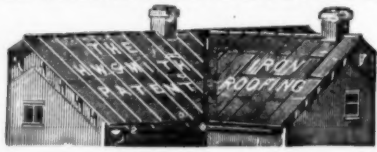
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SAW MILLS, BARNs,
FACTORIES, SHEDS,
Etc., Etc., Etc.
Send for Circulars and Prices.
Mention this paper.

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IRON ROOFING, SIDING AND CEILING,
(The H. W. Smith Patent is the Best in use.)

PLAIN,
Corrugated,
CRIMPED,
BEADED.



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PAINT,
CEMENT,
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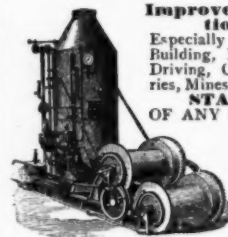
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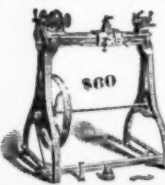
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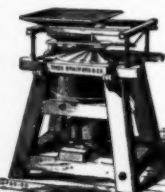
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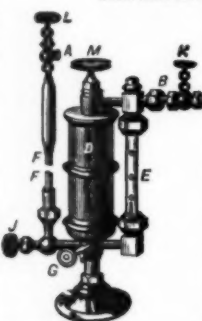
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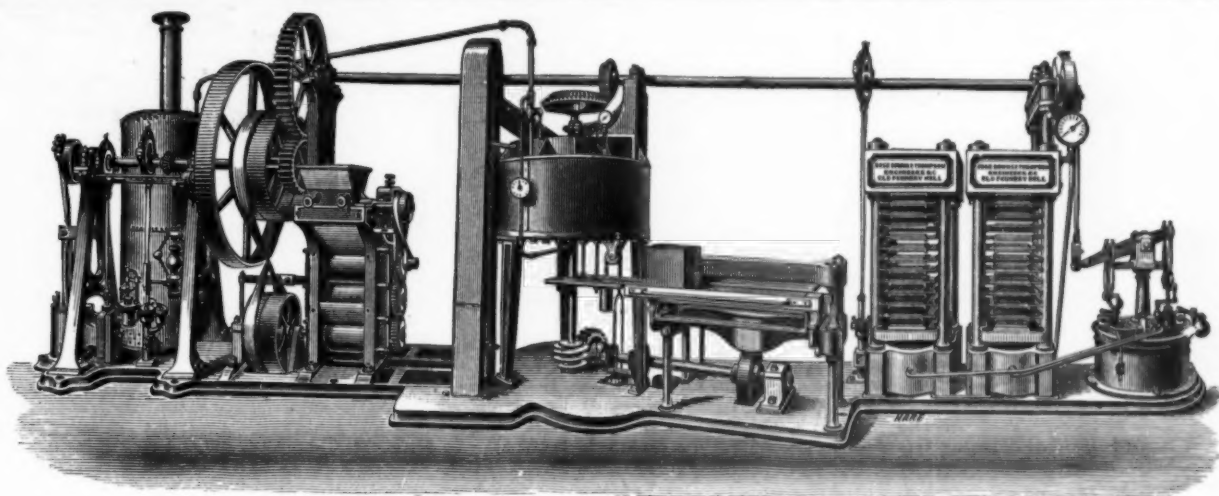
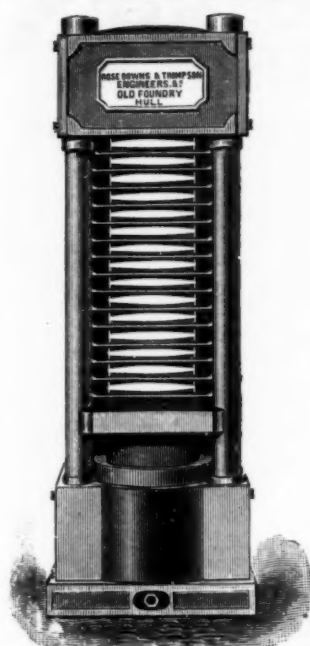
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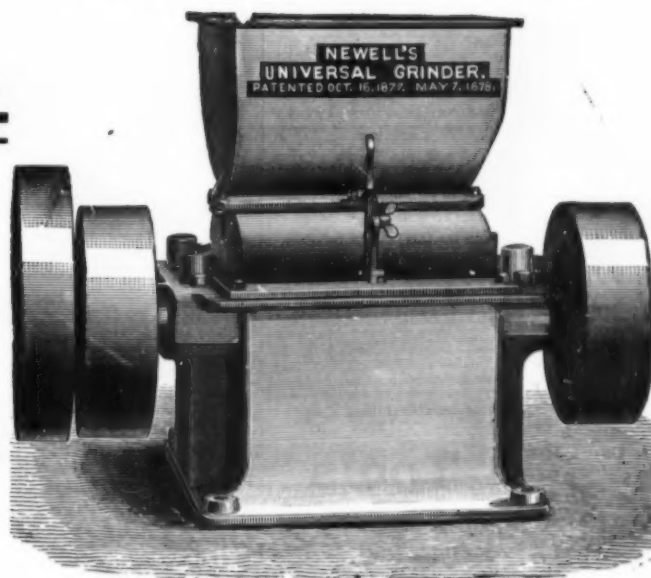
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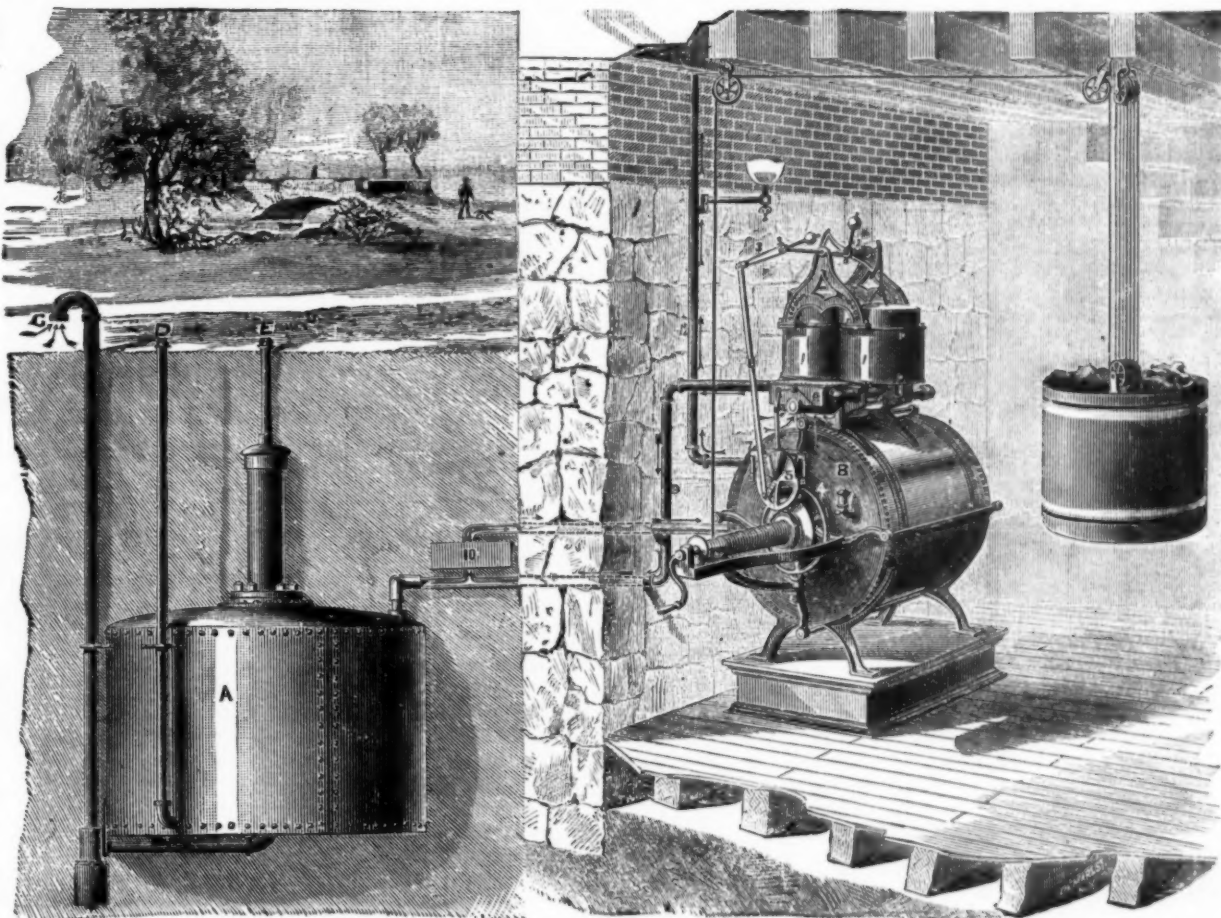
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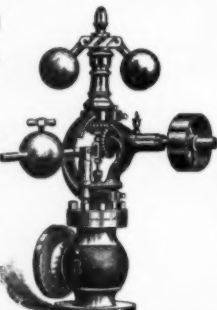
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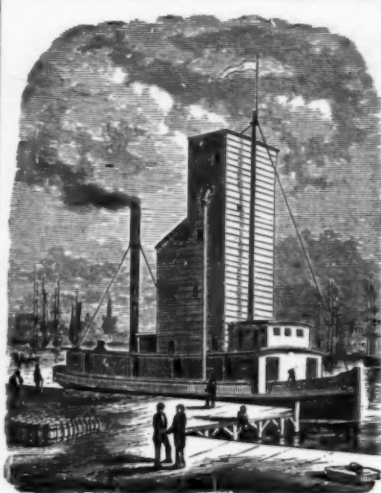
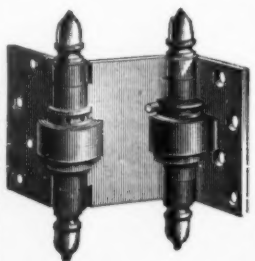
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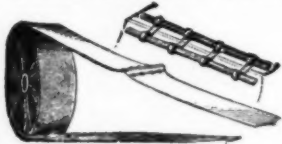


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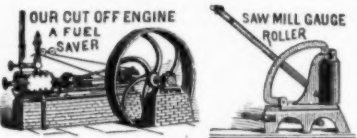
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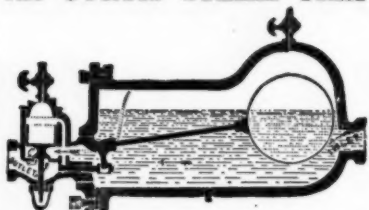
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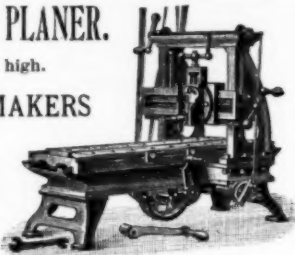
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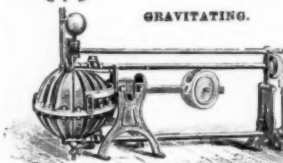
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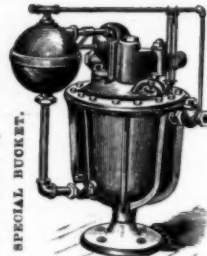


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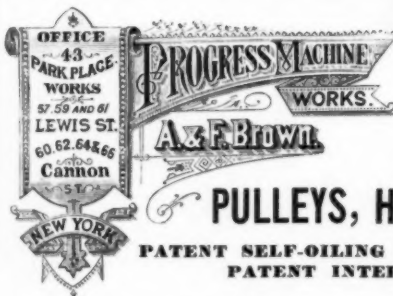


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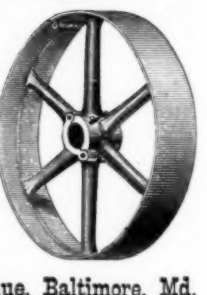
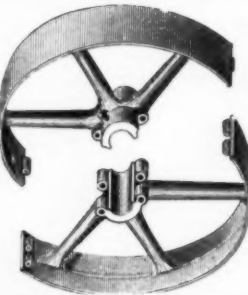
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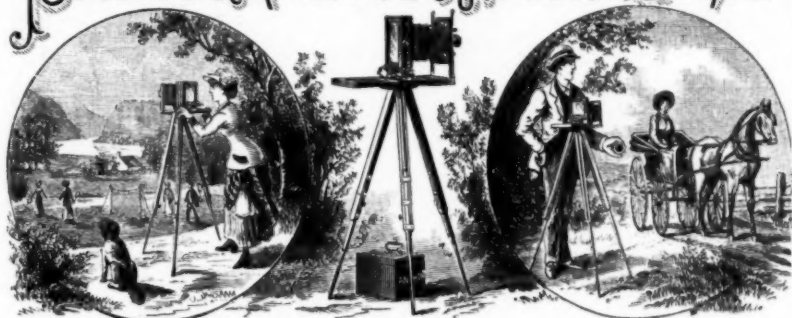


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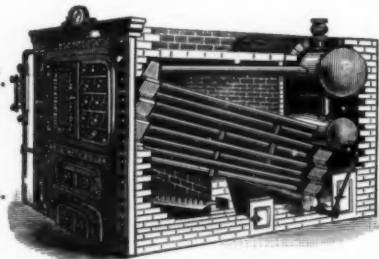
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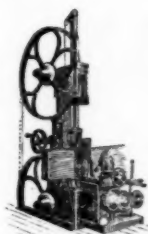
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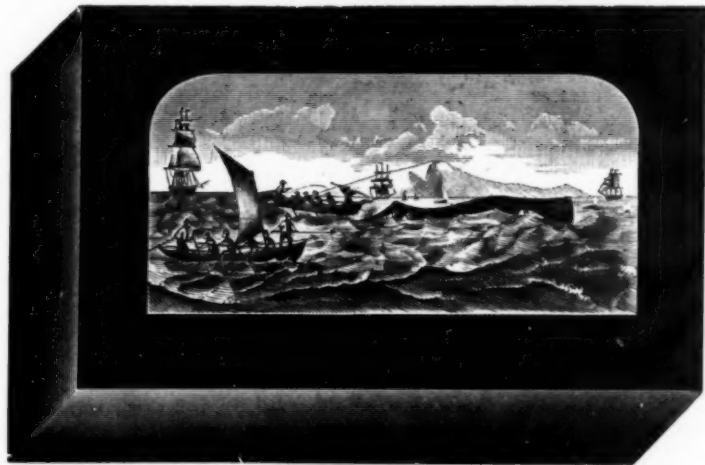
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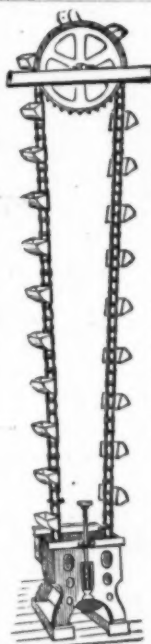
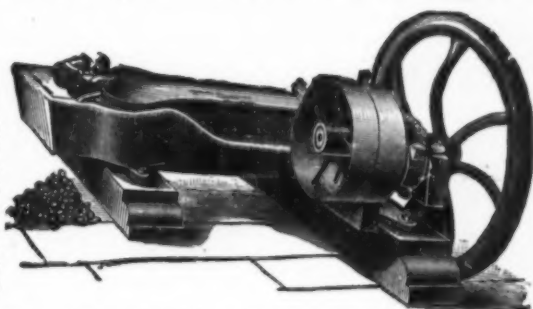
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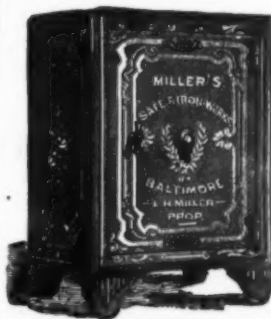
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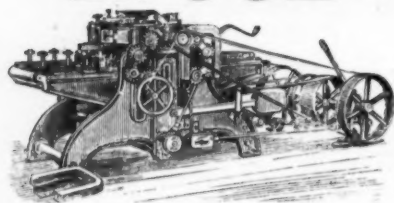
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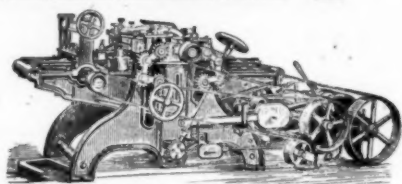
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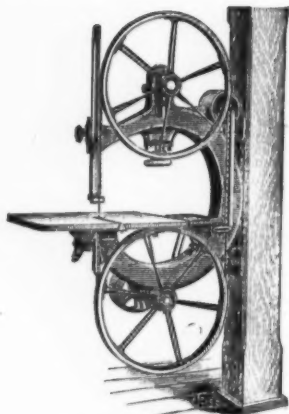
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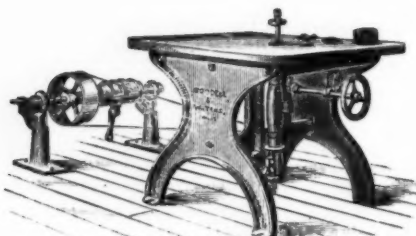
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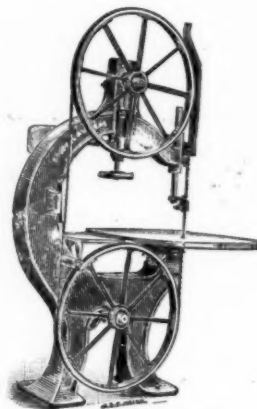
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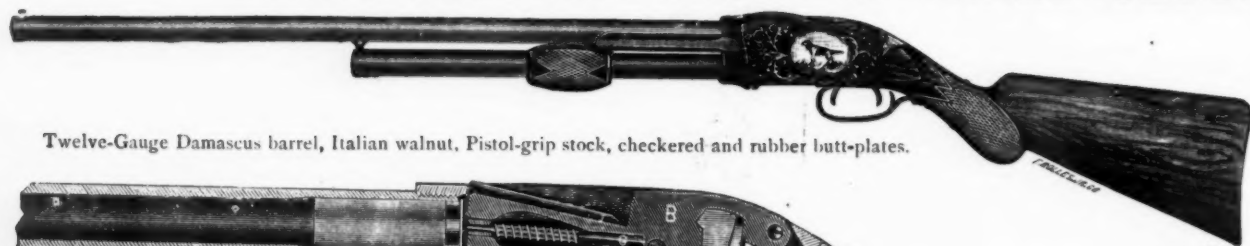
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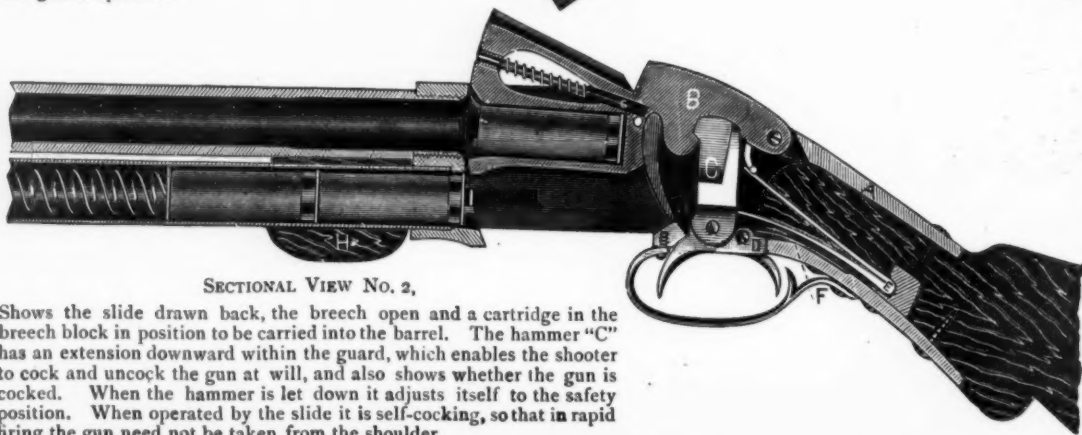


Twelve-Gauge Damascus barrel, Italian walnut, Pistol-grip stock, checkered and rubber butt-plates.



SECTIONAL VIEW NO. 1.

Shows the parts of the gun in readiness for firing. "A" is the frame, "B" the breech block, "C" the hammer, "D" the trigger, "E" the main spring, "F" the sear spring, "G" the firing pin, "H" the slide by which the gun is operated.



SECTIONAL VIEW NO. 2.

Shows the slide drawn back, the breech open and a cartridge in the breech block in position to be carried into the barrel. The hammer "C" has an extension downward within the guard, which enables the shooter to cock and uncock the gun at will, and also shows whether the gun is cocked. When the hammer is let down it adjusts itself to the safety position. When operated by the slide it is self-cocking, so that in rapid firing the gun need not be taken from the shoulder.

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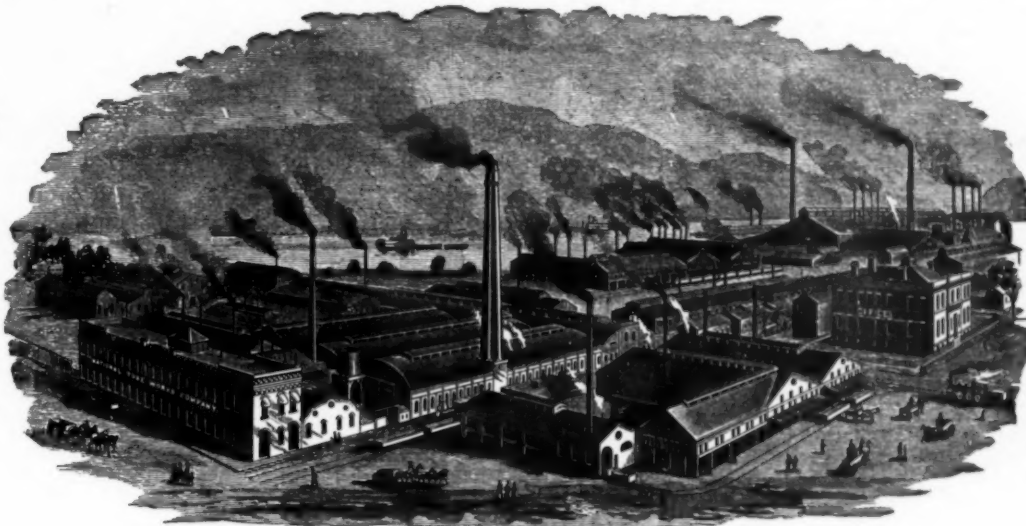
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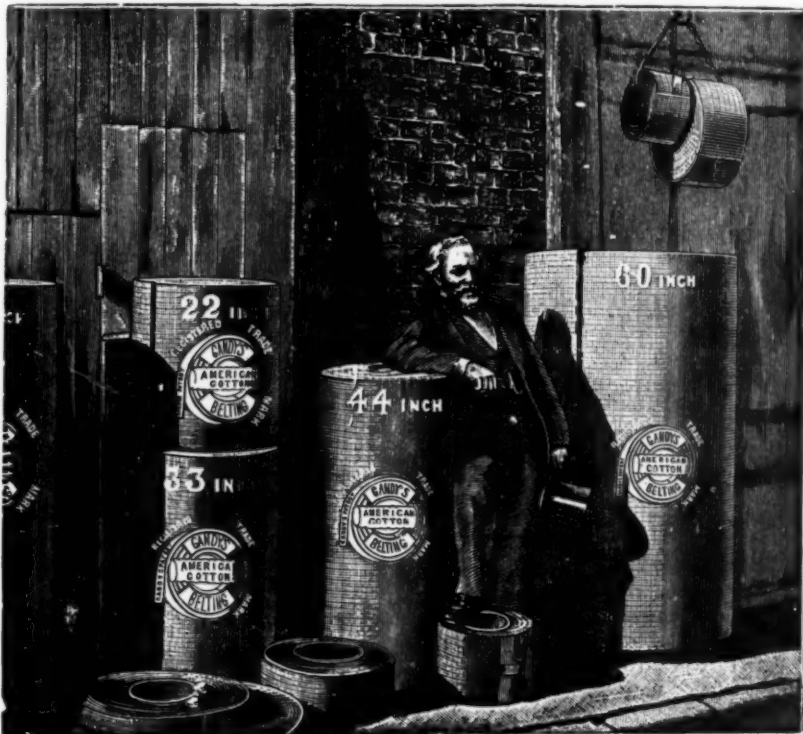
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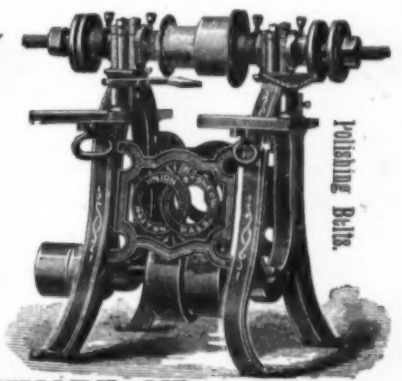
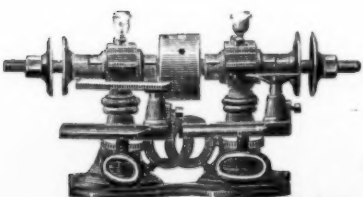
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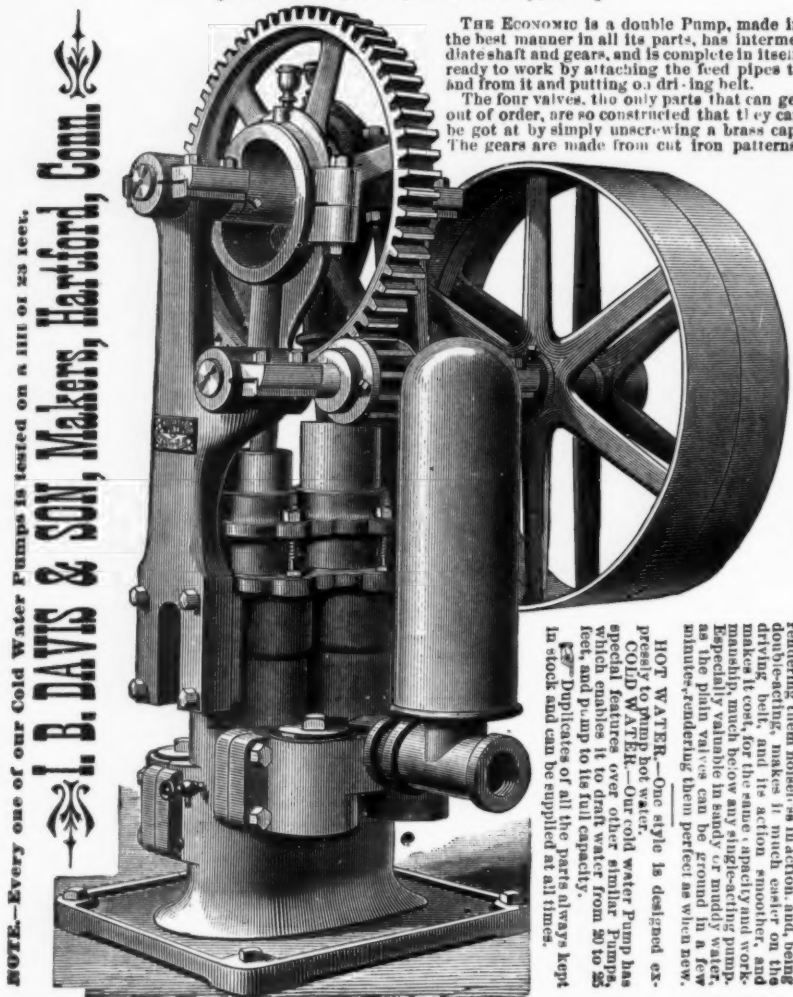
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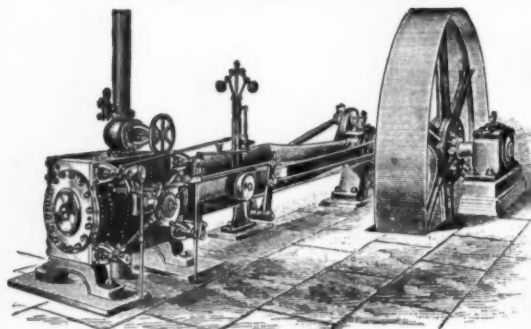
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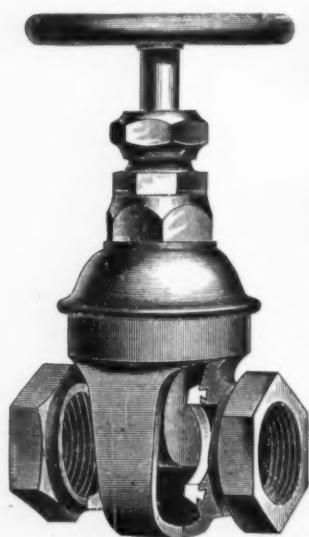
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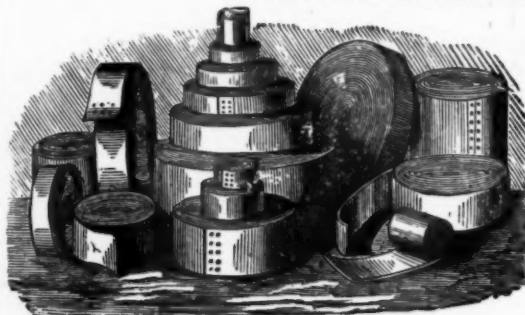
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